

TREATISE
ON
SCROPHULOUS DISEASES,
SHEWING
THE GOOD EFFECTS
OF
FACTITIOUS AIRS:
ILLUSTRATED WITH
CASES AND OBSERVATIONS.

BY
CHARLES BROWN.

— Si quid novisti rectius istis,
Candidus imperti; si non, his utere mecum.

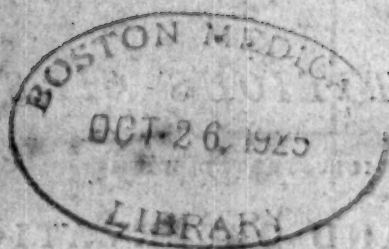
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1798.

[PRICE THREE SHILLINGS AND SIXPENCE.]



1. MR. 19.

TO
ROBERT JOHN THORNTON, M. D.
P H Y S I C I A N
OF THE
GENERAL DISPENSARY,
AND
LECTURER ON MEDICAL BOTANY
AT
GUY'S HOSPITAL.

SIR,

YOUR *Medical Extracts* first
drew my attention to the subject of Pneumatic
medicine, which I have pursued with the
greatest satisfaction to myself, and I trust as

A 2 these

these pages will shew, with some advantage to others. To you, sir, is the world at large indebted for an extensive application of the Factitious Airs, which only want time, and the exercise of your talents, to render them as universal, as they are beneficial. Independent of this work, the assistance I have derived from your LETTERS TO DR. BEDDOES, and the information acquired at your house, by the leave you gave me of seeing your different patients who were experiencing the benefits of your practice, entitle you to my warmest acknowledgments. To render these sentiments of my respect and gratitude as public as they are sincere, is my only view in this address. To say more, or to assume the common language

guage of dedication, would be to a gentleman
of your known diffidence and reputation, as
offensive as it would be useless.

Believe me to be, Sir,

With profound esteem,

Your most obedient and

Obliged humble Servant,

N^o 25 Hatton Garden

~~St. James's, HOLBORN,~~
~~London, W.C.~~

CHARLES BROWN.

Studeamus ergo ; nec desidiæ nostræ prætendamus
alienam—sunt qui audiant, sunt qui legant, nos modo
dignum aliquid auribus, dignum chartis elaboremus.

PLINY, Lib. iv. chap. 8.

Medico diligenti, priusquam conetur ægro adhibere
medicinam non solum morbus ejus cui mederi volet, sed
etiam consuetudo valentis, et natura corporis cognoscen-
da est.

CIC. de ORAT.

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AN
LIBRARY
INVESTIGATION
OF THE
NATURE AND ORIGIN
OF
SCROPHULOUS DISEASES.

THE difficulties attending the treatment of Scrophula although daily occurring in the practice of almost every medical man, are so great, that this disease is justly stiled the *Opprobrium Medicorum*. Hence a variety of remedies have at different periods been recommended for this disease*. In the earlier ages, recourse

was
* The hanging of Vervain-root round the neck, the surrounding the diseased parts with particular precious stones, the stroaking the part with a dead person's hand, and many similar acts, are said by different persons to be specifics in the cure of Struma.

WHITE ON SCROPHULA.

was had to charms, and the royal touch *: but the success attending these modes of cure is highly incredible, and doubtless in a great measure to be attributed to a want of sufficient investigation, which would enable us to ascertain the difference between those modifications of those diseases, which are really scrophulous, and those, which depend upon some other constitutional affection.

The perplexities of our profession which are glaringly manifest to every person the least conversant

* The term King's-evil, applied to Scrophula, arose from the pretensions which King Edward, surnamed the Confessor, professed to have in curing this disease by the touch, and his example was followed by all the succeeding Kings of both England and France. But when these mortals were convinced of the absurdity of this practice, they gave up this foolish pretension; and when the idea prevailed of its being hereditary, this appellation became very obnoxious, and complaints of this kind have been most frequently called Scrophulous from the latin word *Scrophula*, a sow-pig, from these animals being oftentimes affected with this disease. But from the above circumstance of royal superstition and ignorance does it really owe its *English* appellation.

versant in it ; the trivial advantages which have accrued to it, from the laborious efforts of medical writers ; the endless folios which have been written on the distinction and cure of diseases, often more with a view of acquiring popularity and gain to their authors, than of extending knowledge ; to which may be added the continual embarrassments and acknowledged difficulties attendant on the practice of medicine, must have convinced us of this melancholy fact, that we are travelling in a wilderness where there exist but faint glimmerings for extrication, and where the prospect leads to despair,—were it not, that a new hope has arisen, that from the happy industry of a few enlightened men, the torch of chemical philosophy will finally conduct us through this labyrinth of error.

No disease occasions more distress to the unhappy patient, than the one in question,

B

and

and when we reflect for a moment, how general a disease it is in this country, and how many are cut off by its ravages, who might otherwise have been ornaments in society, it is somewhat surprising that more attention has not been bestowed to acquire a more certain and effectual mode of treatment of a malady of such a nature than that which is commonly employed.

Some practitioners have attempted to shew, that it is an hereditary disease, and cannot be cured without some important change produced in the constitution. Mr. White in his *Treatise on Scrophula* has refuted the arguments which have been brought forward in favour of this hereditary disposition in parents, by saying, that as no form, age, or sex are exempted from Struma, it cannot be considered then as an hereditary disease. For my own part, I deny the doctrine of hereditary diseases altogether, for it is founded on a want of observation,

and

and has nothing to support it, but obstinacy and prejudice. A taint transmitted from parents to their offspring and celebrated under the appellation of hereditary, says the learned Doctor John Brown*, is a mere tale. The sons of the rich, who succeed to their father's *estate*, succeed also to his *gout*: those who are excluded from his *estate*, escape that disease, unless they bring it on afterwards, by their own conduct. This supposition makes the noxious powers superfluous, which have been proved to be every thing respecting disease, and as it is therefore nugatory and absurd, so the truth of the latter opinion must be admitted†. The stamina, or simple solids are so given

* Elementinæ Medicinæ.

† Even the learned Doctor Cullen has fallen into some mistakes respecting the doctrine of hereditary diseases. He says, " Scrophula is very commonly and very generally an hereditary disease, and although it sometimes may happen, yet this is very rare, but in children whose parents had at some period of their lives been affected

given in our first conformation, that some persons are distinguished by a rigid, others by a slender state of the whole mass.—This variety of the stamina, if the exciting powers, upon which the whole phænomena of life depend, be properly managed, admits each its respective state of health, suited to its respective nature, and sufficiently good, if the excitement*, suited to each, be kept up by a proper direction of the *stimuli*.

It with it. Whether it may not fail to appear in the children of scrophulous parents and discover itself afterwards in their offspring in the succeeding generation, I cannot certainly determine; but believe that this has frequently happened. It appears to me to be more commonly derived from fathers than from mothers: but whether this happens from there being more scrophulous men than women married, I am not certain."

First lines of the PRACTICE of PHYSIC.

* By excitement is to be here understood the effect of the exciting powers acting upon the excitability, which when of a proper degree constitute health, but when excessive, or diminished, give a predisposition to disease, and the formation of disease.

It very frequently happens in families that one child will have *Scrophula*, and all the rest be exempt from it: now if this were an hereditary disease how could it be expected that any should escape! I have heard of children's having scrophulous tumours behind their ears and about the neck, where it has been supposed, that the variolous matter with which they were inoculated, was taken from children in whom symptoms of that disease were very manifest, and this led me once to form an opinion, that *Scrophula* might more frequently be conveyed into the constitution of the patient by *inoculation* than dependant upon any original *affection*, but upon the authority of an eminent surgeon in this city who has tried in many different instances if *Struma* were a communicable disease*, and who is firmly of opinion

* Mr. Sutton is of opinion that neither inveterate Strumas or venereal taints, (the most of all others to be dreaded)

nion that it is not, I have totally relinquished that opinion.

Having rejected an hypothesis that has generally been advanced respecting the hereditary production of this disease, I shall proceed on to consider the seat and causes of it, by which we are alone enabled to form proper indications of cure.

SECTION

dreaded) have ever to his knowledge been communicated by the ordinary methods of inoculation; although experiments have been made for the purpose of ascertaining this matter.

Vide SUTTON'S INOCULATOR.

SECTION I.

DEFINITION OF SCROPHULA.

SCROPHULA is a weakened action in the system manifesting itself by the following diseases, viz.

1. SCROPHULOUS TUMOURS and ULCERS.
2. PHTHISIS PULMONALIS.
3. TABES SCROPHULOSA.
4. OPHTHALMIA TARSI.
5. HYDARTHUS.
6. BRONCHOCELE.
7. HYDROCEPHALUS.
8. LUMBAR-ABSCESS.
9. RACHITIS.

SECTION

SECTION I.

DIFFERENCE OF SCORPIONS.

SCORPION is a venomous insect
in the form of a scorpion, with the fol-
lowing distinct parts.

1. SCORPIONID TENDRILS AND ULCERS.
2. PECTEN PRONOTALIS.
3. TENDRILS OF THE TAIL.
4. OXYGENAL TAIL.
5. HYDROPHILUS.
6. PROTHORACIC.
7. HYDROPHILUS.
8. LUNAR-FLY.
9. HYDROPHILUS.

SECTION II.

Of SCROPHULOUS TUMOURS and ULCERS.

IT will be unnecessary to give a long and tedious description of scrophulous tumours and ulcers, since as the late Mr. Hunter observes, these are so characterized, as to be easily distinguished from all others. They begin at first generally in the neck, affecting the *conglobate* glands*, feel hard, are colourless and

C indolent

* The conglobate glands are also lymphatic. As to their structure they are sometimes round, at other times oval, oblong, or flat. They vary in size, sometimes as large as an acorn, and at other times as small as peas. Their structure is made up of blood-vessels, lymphatic vessels, nerves and cellular texture—the blood vessels are both arteries and veins. In young subjects there is an appearance of an intermediate body, containing a whitish liquor—they are principally supplied with nerves and lymphatics. It appears from injection that in their inward surface they are cellular. When many grow together they form a cluster or mass. They are more numerous in the texture

indolent in their progress. Such tumours in their commencement are rarely attended with pain, or certainly not much. The absorbed fluids, in their course to the veins, in *Scrophula*, are arrested in the lymphatic glands, which swell, and after a great length of time inflame and suppurate. Doctor Darwin * observes that these indolent tumours of the lymphatic-glands which constitute *Scrophula*, originate from the inirritability of those glands; which therefore sooner fall into torpor after having been stimulated too violently by some poisonous material: as the muscles of enfeebled

texture of the lungs or testicles, in the neck, bronchia, intestines, axilla, under the fat, above the inner condyle, and along the dorsal Vertebrae. They are placed in situations of the body, where they are ready and fit to receive pressure. There is an excretion into their cells from the exhalent arteries. When these glands in the Mesentery are hardened or enlarged, an atrophy usually follows. Alientery is also connected with the disease of these glands.

* ZOONOMIA, Vol. 2.

bled persons sooner become fatigued and cease to act when exerted, than those of stronger ones. On the same account these serophulous glands are much larger in acquiring increase of motion, after having been stimulated into activity, and either remain years in a state of indolence, or suppurate with difficulty, and sometimes only partially.

It has been noticed by Doctor Beddoes that serophulous tumours arise from a deficiency of oxygene, occasioning inirritability of the system, and when we remark the fallow appearance of the countenance, the slowness of the pulse, and the torpor of the tumours in such patients, we shall readily assent to this doctrine. The tumours when they break occasion ulcers, whose edges are pale and flabby, and naturally disinclined to heal, seldom yielding a good discharge. At first they afford a viscid, glairy, and sometimes whitish curdly

matter, which afterwards changes into a thin, and aqueous sanies. After continuing in this state for some length of time, the edges of the fores become irregular, and smooth, sometimes however these are elevated, and at other times are very flat. When they are healed up quickly, they soon break out upon some other parts of the body, where there is local debility, or in other words, diminished action of the sensorial power. For this reason it appears, that vital-air, by invigorating the system, increasing the excitability both local and general, and by keeping up a gentle and universal stimulus, which pervades the whole frame, very frequently have effected a cure, when even all other remedies have failed.

At a certain age, that is between infancy and puberty, these tumours sometimes disappear, and ulcers have healed up spontaneously, though very rarely.

To discuss scrophulous tumours, and heal scrophulous sores, a variety of remedies have been extolled, such as preparations of Mercury both internally and externally, solutions of Cerus. Acetat. Aq. Veg. min. the Bark, Tar-water and Cicuta. Calomel * by acting as a stimulant and increasing the excitability of the System, has been given in small doses with evident good effects, and these would be augmented, by inhaling at the same time oxygene-gas.

Electricity as a topical remedy is spoken of in high terms, by those who have applied it, and I think I have in several instances seen it of service. Pressure † beyond ease over the
tumours

* Vide Mr. WHITE's Treatise on SCROPHULA.

† But in no species of sore is compression either so evidently indicated, or of so much real utility, as in scrophulous ulcers: in which that swelling and tumefaction, which frequently raise their edges to very considerable heights,

tumours is the best exciting power, by assisting weak vessels, and promoting absorption. This will be all that is necessary to be done for such tumours before they break.—When ulceration has taken place, other remedies become necessary.

Among the foremost stands the woodforrel (*oxalis acetosella* *) of which the reader may see a fuller account, with a variety of cases in which it has been successfully employed, by referring to “ Beddoes’s Considerations on the

heights, often prove a greater hindrance to the cure than any other circumstances: and which, when no considerable inflammation occurs, may always by gentle compression be easily and safely removed.

BELL ON ULCERS, p. 430.

* Mr. CRUSOE an ingenious young surgeon at St. Bartholomew’s Hospital, to whom I am much indebted for many valuable communications on different subjects connected with the profession, has assured me that he has applied the *oxalis acetosella* to other ulcers besides *scrophulous* with good effects.

the Medicinal use of Factitious Airs," pages 144, 150, 152, and 158, Part IV. and Townsend's Guide to Health, Vol. 2, Page 521.

A quantity of the leaves should be procured fresh, pounded in a mortar, and mixed with oatmeal, and applied as a poultice to the sores.

At first it occasions much pain and redness in the part, but the pain after two or three repetitions abates, and as to the redness that is a beneficial effect. After the application a sloughing comes on, and the discharge which was before thin and acrid is converted into good pus. Should the discharge be foetid, powdered charcoal, or fine mendip *manganese* reduced to an impalpable powder, should be sprinkled over the sore previous to the poultice being applied. Thus the foetor will be corrected, and the healing process forwarded at the same time.

In

In the treatment of Ulcers, their disposition to heal (let the means of promoting this purpose be what they may) depends upon the matter secreted by them, being first thickened by increasing the absorption in them, and then lessened, till all the matter is absorbed which is brought by the arteries, instead of being deposited in the ulcers. Scrophulous ulcers are produced, chiefly in the lymphatic-glands, by weak and relaxed vessels, which have lost their tone, and therefore have not vital energy sufficient to produce inflammation, without which, as I have before said, there can be neither *suppuration* nor *granulation*. Where their edges are very high and irregular, as they sometimes are, I have touched them at each dressing with Bernhard's mixture *, which I

* Take artificial cinnabar, dr. 2. ashes of old leather burnt, gr. viij. Sang. drac. gr. xij. Arsen. alb. gr. xl. Let these be finally powdered and mixed in a glass mortar, and set by for use. When it is used some of it is mixed with

have from experience found to be a good application. Washing scrophulous sores with diluted citric-acid †, before the poultice is applied, keeps up that proper irritability in the part, which is essential, to the formation of good matter. The action of sorrel and lemon-juice, applied to scrophulous ulcers, probably arises in stimulating the languid in-irritable absorbents, by means of the oxygene contained in these substances; just as acid gargles promote the absorption of the thinner parts of the saliva, which is then easily dislodged. These local applications will be rendered much more efficacious, if the patient

D

were

with so much water as to form a thin paste, which by the means of a small hair pencil is applied to the whole surface of the ulcer about the thickness of a shilling. Vide Chir. Bibl. Vol. 7, Tourn. de Médecine, Vol. 57. Med. and Chir. Review, Vol. 1. page 89.

† Mr. Polhill, surgeon to the English Hospital at Leghorn, has very frequently applied diluted citric-acid (Succ. Lim.) to scrophulous sores on the legs of Sailors.

were at the same time to inspire *hyper-oxygenated air* *, and take bark and chalybeates ; using at the same time a moderate degree of exercise. The putrid appearance which scrophulous ulcers sometimes put on, is owing to exhausted excitability, followed by indirect debility, which is discovered by the very offensive smell, blackness, and flaccidity in the part, under these circumstances, whilst vital energy is restored to the part by the oxalis, or metallic oxyds, particularly that of *Mercury*, vigour will be imparted to the constitution by that *natural and most diffusible* of all stimulants the *vital-air*!

* Vide Considerations on the Medicinal Use of Factitious Airs, by T. Beddoes, M. D. the case of Mr. Cooper page 72, Mary Buchanan 144, William Gilbert 150; also pages 152 and 155. Also Cavallo's Treatise on Factitious Airs, page 173, Case 8.

CASES.

CASES.

CASE I.

SOME time ago I was witness at Dr. Thornton's house, to the cure of a remarkable case of scrophulous tumours in a young lady. These had existed above ten years, during which time (for her father was an opulent merchant) she had been under the care of the most eminent practitioners in this town. She had taken mercury until the teeth began to drop from her head, and bark and steel in large quantities, and lastly the cicuta under the late celebrated John Hunter, until blindness had come on. Having been repeatedly at the sea-side, this last eminent practi-

tioner informed her parents, that the disease was so fixed in her habit, that it would be in vain any longer to try medicine, and this was also the opinion of several practitioners who had been consulted on the subject. The tumours extended over the jaw-bones, which could not be felt, and made respiration difficult, and concealment impossible. After a month's trial of the vital-air in conjunction with strengthening remedies, and the application of stimulants to the inirritable glands, a visible decrease took place, and this plan being pursued for some months, the diminution has been five inches in the neck by measurement, and nearly a total disappearance of the diseased glands. The effects of oxygene-gas in this case were the most remarkable I ever witnessed. The young lady enjoyed good spirits, and experienced no inconvenience from the quantity of elastic fluids she had inhaled.

CASE

CASE II.

Of Thomas Francis of Bristol.

THOMAS Francis, aged five years, about three years ago had several Ulcers broke out about him, for the cure of which he was put under the care of several Surgeons in Wales, who ordered him to be dipped in the sea. He took a variety of medicines, and escharotics were applied to the sores. But his health declining very fast, his parents brought him up to Bristol, with a view of getting him admitted an in-patient to the Infirmary, in hopes of his there obtaining a speedy and permanent cure. Three weeks after his arrival in Bristol, he became an in-patient. He continued only three days in, and was then discharged as incurable. Under these circumstances I was urged to go and see him, and upon examination found three very large scrophulous

phulous ulcers, with flat irregular edges, the discharge very thin, acrid and foetid. One was on the *pectoral bone*, another over the *vastus internus* muscle, and a third behind the ear. He had a bad cough, and disturbed nights. The glands of the neck were hard and enlarged. He had a very smooth skin, thin upper lip, with an inelastic feel, and a blueness at the ends of his fingers. From want of clothes, and plenty of food, together with the absorption of this purulent discharge from the ulcers, he was reduced almost to skin and bones. He was very subject to costiveness, and always in great pain. I applied powdered charcoal to all the sores, over which I put the leaves of the *oxalis acetosella* simply bruised. A dose of calomel was given him that night to evacuate the bowels. When I called upon him next morning I found he had been in great pain, occasioned by the *oxalis*. He had only one stool during the night. The
dose

dose of the calomel was increased from seven to twelve grains, which before night, procured four copious stools. The ulcers were this day, April 14, washed with diluted citric-acid. The oxalis was again applied, the oxygene gas diluted with atmospherical air, five quarts of the former to six of the latter, was given him out of filken bags, not having at that time a pneumatic apparatus. A pint of wine was allowed him daily, and exercise and clean clothing strictly enjoined. Forty drops Vini opiat. (Pharm. chirurg.) were given him at bed-time.

15. He has had a good night. The discharge is increased in quantity, is thicker and less offensive. Granulations begin to rise. His pulse weak. Continued the oxalis, repeated the air, and opiate at bed-time. Ordered him the most nourishing food, and as much port wine as he could drink. 16. The vessels on the

the surface of the sores appear to have acquir'd healthy action. Fresh granulations formed. The discharge thicker. His pulse more strong. Bowels costive. Appetite sharper. Repeated the oxalis, and increased the quantity of oxygene-gas to eight quarts. Ordered him a purging powder consisting of fifteen grains Pul. Rhei. and one scruple Kali. Vit.

16th. The ulcers heal very fast, granulations uniting every where. The powder gave him two stools. He had no pain from the application of the sorrel. The glands behind the ears are of their former size. His spirits are very good, and his general health mends fast. The oxalis was now omitted, and nothing but lint dipped in a weak solution of the vit. cœrul applied to the sores. The purging powder ordered to be repeated every other night (*ad tres vices.*)

From

From this time till the 12th of May, the sores gradually healed, and by the 29th were cicatrized. He was quite recovered in every respect by the 1st of June, when I discontinued my attendance, and all medicines left off*. This was the *first* case in which I had ever used the *oxalis*, or administered the vital air, and the success attending it far exceeded my expectations. During the whole progress of cure, I strictly enjoined exercise, which increases respiration and quickens the circulation of the blood, deriving thereby a greater quantity of oxygen from the surrounding atmosphere, and distributing that *pabulum* of vital energy to every part of the animated frame. Pure air strengthens exercise, whilst foul, and vitiated air, debilitates, and exhausts the powers of life.

E C A S E

* The vital-air was continued till the middle of July.

CASE III.

*Communicated to me by an eminent Physician at
Bath, July 24, 1798.*

MISS A. T. aged 20 years, a very beautiful and accomplished young lady, had been afflicted with scrophula for three years. When I first saw her she laboured under Phthisis Pulmonalis. The glands about the neck, and behind the ears were much enlarged and felt hard. She had two very deep and extensive ulcers, one under her left ear, and the other under her right arm. She was subject to cold tremors every night about ten o'clock, with fever, heat, and flushing. She expectorated every day, half a pint of pus streaked with blood. Her limbs were much emaciated, she had lost her appetite, and slept very ill. The ulcers by my direction were dressed every day with the oxalis acetosella, and the hydro-

hydrocarbonated and oxygenated airs mixed, administered in the proportion of five quarts of the former to six of the latter daily. Under this plan of treatment, with plenty of exercise and nourishing diet, she recovered in three months, and is now a healthy mother with a fine child. A case somewhat similar to this is related by Mr. Cavallo in his Treatise upon Factitious Airs. Vide Case VIII. page 173. And Monsieur Fourcroy speaks in the highest terms of the *vital-air* in *Scrophula*. Vide Fourcroy's Elements of Chemistry, tom. 2. I have already referred the reader to Dr. Beddoes's Treatise, Part IV. (published by Johnson in St. Paul's Church-yard.)

SECTION III.

Of the PULMONARY CONSUMPTION.

WHEN Phthisis-Pulmonalis arises from a scrophulous affection, the seat of this disease is found clearly to exist in the cellular substance of the Lungs, where round firm bodies named tubercles are formed similar to the swelling of the lymphatic-glands on the external surface: they are of different sizes from the smallest granule, to half an inch in diameter and often in clusters——They adhere pretty closely to the substance of the lungs, and have no particular covering or capsule.—In proportion to the smallness of their size, is their firmness, and when cut into, in this state, are of a white colour with a consistence nearly approaching to cartilage: in some part of them there is always a small pit or hollow,

low, where as they increase, the formation of the matter begins, and at length they pass into vomicae. But the formation of matter is not always determined by their size. In some it begins very early. When in small quantity, the consistence of the matter is thick and curdy: when in greater quantity it is thinner, and more resembling the matter of a common sore. From this view of the disease, which dissection affords, tubercles and vomicae constitute the causes of this disorder with its several attendant symptoms, and its difficulty of cure may be hence readily accounted for. Each of these tubercles is to be considered in the same light as that of an external lymphatic swelling, which in order to its termination, must be liable to all the subsequent consequences that either attend this, or any rupture of the teguments in other situations, while an additional obstacle to the process of healing is here

here presented from the constant motion of the lungs*.

The accurate investigations of Doctor Stark† have thrown more light upon the subject of tubercles than all the labours of preceding physicians. He says that tubercles whilst small are always solid; when large, they are sometimes so. They approach to the hardness of cartilage, and when cut through appear smooth, shining, and uniform. No vessels are to be seen in them, even when, after injecting the pulmonary artery and vein, they are examined with a microscope. They are always in the cellular substances, never in the air vessels, in which the extremities of the bronchial ramifications terminate. They are at first extremely small, numerous and in clusters; but never in the

* NISBIT ON SCROPHULA.

† De Tuberculis Pulmon.

the least inflamed. When they become vomicae, it is always in the superior and posterior part of the lungs, where they form strong adhesions to the Pleura.

Those persons liable to tubercles * are generally of a fair complexion, soft skin, and irritable fibre, and disposed to suffer by lymphatic

* The experiments of the very ingenious and learned Doctor Pascal-Joseph Ferri of Vienna throw a considerable light upon some diseases to which he has made an extensive application of the principles of Pneumatic medicine. From his experiments he draws the following rational conclusions, that the inspiration of oxygene-gas dissipates the spasm of the vesicles of the lungs; prevents the accession of those spasms, diminishes and removes the disposition to inflammation in the lungs; dissolves the extravasated lymph which obstructs the pulmonary vesicles; produces good effects in the dropsy of the chest; is a good remedy in the *Tuberculous Consumption*, diminishes hectic fever; relieves the oppression which subsists after inflammation of the chest; cures speedily and effectually the periodical asthma and hooping cough, augments the secretion of urine, especially in affections of the breast; produces no effects in Rheumatism, but is a *sovereign remedy in Scrophula*.

phatic tumours. Some other circumstances of a local nature in addition to what has been said on the subject, may add to the fatality of the disease in this climate, and tend to bring it on where otherwise there was no predisposition in the patient to become so. One cause which may assist greatly, is that passion, which manifests itself among our females, but which daily grows out of fashion, of wearing tight stays*, by which the circulation of the blood through

* Another great cause, says the ingenious Dr. DARWIN, to the shape of young ladies is, "from the pressure of stays, or other tight bandages, which at the same time cause other diseases by changing the form or situation of the internal parts." Some time ago I assisted in opening the body of a young woman in this city, who died of Phthisis-chlorotica—She had always, I learnt, been in the habit of wearing tight stays with a view of giving the body a fine shape. I found the lungs full of tubercles, mostly in a state of suppuration. One remarkable appearance in this case was, that the whole of the lungs was found on the right side of the *Mediastinum*: the heart with its appendages occupying the left. The liver was enlarged, the other viscera were found. The ingenious
and

through the lungs is impeded, the capacity of the thorax lessened, and the space which in a state of health is required for the free action of the lungs, is diminished. A narrow chest, a long neck, and prominent shoulders, though not occurring in all cases of scrophula, may be considered as unfavourable marks of this disease. Mr. Townsend in his Guide to Health,

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Vol.

and learned Author of *Medical Extracts* says, "The pressure of the abdomen by stays impedes the action of the stomach and bowels, and the motion necessary for respiration, and consequently the just circulation of the blood. Hence a train of dreadful disorders ensue. The pliancy of the body, and the natural grace of the female form, is prevented by this rigid coat of mail." The imprudent zeal of the mother for a fine shape, performs another most unkindly office to the child. She frequently becomes either incapacitated for marriage (and what a serious reflection that is) or dies in child-birth. The madness in favour of stays seems, however, to be somewhat abated; and it is hoped the world will in time become wise enough to know, that the human shape does not solely depend upon *whale-bone* and *leather*. But prejudices once deeply rooted (particularly in the female sex) are only gradually obliterated.

Vol. 2, observes, " that when medicines fail to effect a cure in Phthisis Pulmonalis, a change of climate must be recommended, and no climate, in his opinion, can be superior to that of Valencia." Should the scrophulous or consumptive patient be inclined to make the trial, he will have an easy route by Paris, Lyons, Montpellier, and Barcelona, and for less than fifteen guineas he will find himself transported into a paradise, in which nature exhibits an everlasting spring. (Vide Townsend's Travels through Spain, Vol. I. and II.) The same ingenious author observes, that he never met with this disease in Spain, owing as he thinks to the uniform state of the weather, and heat of the climate; but I shall have occasion hereafter to shew, that it is a disease incident to very warm and extreme cold climates, and that contrary to the opinion of a celebrated Professor, is not influenced by the state of the weather.

SECTION

SECTION IV.

TABES SCROPHULOSA.

THIS species comprehends all cases in which diseased glands occasion atrophy. It takes in therefore the *tabes glandularis*, *tabes mesenterica*, *atrophia infantiles*, with the *atrophia rachitica* of Sauvage, and the tabes, to which inebriates are subject from schirrhous glands, whether of the liver, spleen, pancreas, or mesentery, and is attendant on the species just before enlarged upon (*Phthisis Pulmonalis*.) In patients who have died of this modification of the disease in question, I have sometimes found the *receptaculum chyli*, and *ductus thoracicus* affected in like manner with the *mesenteric glands**.

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SECTION

* Vide also BAILLIE'S MORBID ANATOMY, 2d Edit.

SECTION V.

OPHTHALMIA TARSI.

THE eye-lids are very commonly another seat of this disease: it is very difficult to make a patient labouring under the Ophthalmia Tarsi believe so. A very slight cold frequently brings on inflammation of the eye-lids, which ultimately terminates in a disorder of the eye, and there is no form of the disease so tedious to remove, or more painful in its attack, or in which a relapse is more liable to occur than in this.

After the inflammation of the eye-lids commences, a swelling of the sebaceous glands immediately follows, which terminates in ulceration, and this ulceration is generally of a troublesome nature. A better description of the progress of this species of Scrophula cannot

not well be given than in the words of Doctor Nisbit, who observes, " that an acrid discharge constantly takes place from it, which irritating the eye itself renders it weak, and unable to bear much impression either of light or heat." Frequently it is of a more viscid nature, and glues the lids together in the nighttime, leaving a gorey appearance on the lid through the day,

This form of the disease is not often acute, it is of a more chronic species, and gives a disagreeable appearance to the sight. The eyelids continue always more or less inflamed, thickened, and raw, and the ulcerations are with difficulty healed up, or if they are, break out afresh on any sudden cause of irritation. On leaving one eye the inflammation is liable in such cases to attack the other; and wherever one attack has taken place to a degree of violence, the patient is exposed to its recurrence
from

from the slightest cause. I have never found any difficulty in effecting a cure in the worst cases, and that even after all other remedies have failed, by directing patients to take small doses of calomel at bed-time, rubbing a little of the ung. Hydrargy. nitrat. between the lids the last thing at night, and inhaling the vital-air in the day-time in doses suited to the age and constitution of the patient. This new mode of treatment I shall illustrate, by an example.

A gentleman of my acquaintance had laboured under an ulceration of both eye-lids for nearly three years, and on which account he had the advice of the most able oculists in this city. A variety of applications at different times had been used, and the materia-medica searched all over for various alteratives. He had been at the sea-side for four months, and had taken the Aqua-marin, internally during the whole

whole of that time every other morning without intermission, but had derived no advantage. I recommended him strongly to inhale oxygene-gas, which he did regularly every day for three months, in the proportion of eight quarts, to twelve of atmospherical air. As he could bear no sharp application to the eye-lids, simple spermaceti ointment, melted in a spoon over a lighted candle, was introduced by means of a camel's-hair pencil between the Palpebræ every night. Under this plan of treatment in four months he was quite recovered, and has since had no relapse. Change of air, plenty of exercise, with chalybeats, and the ung. hyd. nit. will seldom fail of removing this disease, and their good effects will be augmented, if the patient inhales the *vital-air*. Nourishing diet, with generous portwine, will give vigour to the system. Washing the eye-lids with cold water of a morning, is highly injurious.

SECTION

SECTION VI.

Of the HYDARTHUS.

* **T**HE Hydarthus is usually reckoned as another species of Scrophula, which begins in the lymphatic glands about the knee-joint, and

* Mr. BRYAN CROWDER, Surgeon to Bethlehem and Bridewell Hospitals, has in a late publication on White Swellings, availed himself of an opinion delivered by the late Mr. POTT, which he has applied more extensively in his practice, that of keeping up a purulent discharge from the neighbourhood of the diseased joint, which he has found highly efficacious, by the application of the *ceratum Sabinæ* †. This is also a good dressing for scrophulous

† *R* Sabinæ recent: contusæ
 Cerae flavæ. singl. lib j
 Adips Suillæ. lib. iv. Adipē et
 Cera liquefactis incoque sabinam et cola.

and is very painful and slow in its progress. It commences with a slight tumefaction of the cellular membrane, without any discolouration of the skin, attended with great heat and frequent pain. The skin appears clear and shining, the joint becomes finally enlarged, the surrounding parts feel elastic, the limb gradually wastes, abscesses form in the vicinity of the joint, and a discharge takes place, being, as a late writer observes, sometimes a viscid glairy fluid, at other times more purulent and

G

some-

phulous ulcers, which are tardy in suppurating. Whether the conclusions which Mr. CROWDER draws, "that an issue in any part of the body, may be successfully employed in all cases of Scrophula, and may probably be sufficiently powerful when it is applied in time, to prevent an attack of this disease in constitutions predisposed to it," future experience must determine. I have observed that long continued drains generally accelerate the progress of hectic fever, which in time seldom fails of having a fatal tendency, and where a long continued perseverance in the use of the vital-air, with change of air, and corroborants fail of success, I should have but little opinion of other remedies.

sometimes entirely sanious and foetid matter.

If the disease be not in this stage detected, and its progress stopped, it proceeds on and extends itself to the bone itself. Thus the cartilages take on symptoms of inflammation, and are dissolved. The bone itself is not exempted from undergoing the same change; and the structure of the joint on dissection is found melted down, more or less, into one heterogeneous mass, consisting of a white glairy fluid mixed with matter, with pieces of carious bone of different sizes. The patient in this last stage dies if amputation is not had recourse to, and even the operation itself will not at all times prove salutary, as the hectic attending these cases will frequently have too far reduced the strength of the patient.

It will be necessary to distinguish properly between the Scrophulous white swelling and that which arises from a Rheumatic affection, for

for reasons that must appear obvious to the practitioner. From the unfavourable diagnosis which Mr. Bell in his Treatise on Ulcers gives, a practitioner might be intimidated from using his utmost endeavours in saving the limb; for he observes, page 475, " that in the *scrophulous white swelling*, it is not probable that art will ever be able to afford much assistance." Since the publication of Mr. Bell's Treatise, our hopes are revived from the benefits to be derived from inhaling the *vital air**. The Rev. Mr. Townsend observes in his invaluable Guide to Health, Vol. 2. that from what he has witnessed in the practice of his friend Doctor Thornton, " he is persuaded, " that in white swellings the inhalation of " hyper-oxygenated air will produce the greatest benefit." For in this new mode of treatment with *vital air*, energetic action in the

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part

* See LETTERS to Dr. BEDDOES from Dr. THORNTON to this effect.

part is supported by the system, whereas in the old practice, with external applications only, it is kept up for a short time by partial stimuli, on weak and diseased vessels.

I would first recommend leeches to be applied, and after they have fallen off, blisters should succeed them. At the same time I should advise bark and steel, with the inhalation of oxygene-gas, with a fine open air, gentle exercise, and cheerful company; and I make no doubt from the experience I have had in these cases, that this disease is capable of being cured like other cases of Scrophula,

NOTICES

SECTION VI.

Of the BRONCHOCELE.

BRONCHOCELE though not usually ranked under the head of Scrophula, partakes in every respect of the nature of that disease. It is generally found among persons living in mountainous situations*, as Derbyshire, Somersetshire, &c. It comes on with a small swelling externally about the middle of the throat, unattended with pain, and gradually increases in size till it renders both respiration and deglutition laborious and difficult. It has long been called the Derbyshire neck from its frequent

* “*Tumidum guttur quis miratur in alpibus,*” seems to have been a proverb in the time of Juvenal.

frequent occurrence in that country, but such appearances are now very common every where. It is supposed by some to arise from an acidity in the stomach, and absorbent medicines as burnt sponge *. Sal. sodæ, Magnes. ust,

* The credulity of that physician is still further pitiable, who from confidence in the peculiar efficacy of burnt sponge, burnt leather, and other trash of a similar nature, expects to cure *Scrophula*, and a variety of tumours both encysted and solid, occupying different portions of the body—I know of no character so truly despicable, or that merits the indignation of society more, than the wretch who despises the knowledge of rules of science in the practice of a liberal art, where the most invaluable of all human blessings, health, and its attendant comforts are at stake.

Nothing surely more completely evinces the revival of the Philosophy of Democritus than this propensity of Physicians to empiricism. Instead of observing coincidences of facts and affinities in nature, they observe a very different conduct indeed: like apt pupils in the Democritic school, they endeavour to demonstrate that nature is made up of parts completely heterogeneous with respect to each other, and that a pleasing affinity is nowhere discernible in her phenomena or the characteristic of her works,

ust, &c. have been prescribed with that view. Upon the very respectable authority of Mr. Townsend, we are informed that in the vale of Pewsey, where it is very frequent, he never fails of curing it, in all who apply to him for advice, by giving lozenges of burnt sponge well powdered, and made up with the Syr. Altheæ. (Vide Guide to Health, Vol. II. page 462.) Finding, however, the usual remedies prescribed for this species of the disease so often fail, I was resolved some time back to try the effects of the vital-air, and a case shortly afterwards coming under my care, gave me a favourable opportunity of observing a very rapid progress under this plan of treatment.

Miss M. P. aged 18 years, about three years ago perceived a small soft tumour growing about the middle of her throat, which continued gradually increasing in size till the
latter

latter end of the year 1797. It gave her no pain, but sometimes affected her swallowing, and looked very unsightly. A variety of applications had been made to the part, and under the care of several eminent men in this city, she had taken the cicuta, burnt sponge, and latterly sea-water. A solution of common salt in distilled water was also applied to the part by means of folds of linen cloth, dipped in this mixture and renewed every eight hours. But this rather did harm than good*. Elec-
trical

* It is now pretty much the fashion for practitioners in Surgery to apply sea-water, and solutions of common salt in various forms, to indolent glandular swellings. There is reason to believe that this practice is sometimes attended with success; but I have myself always preferred a solution of the common crude sal. ammoniac. May not the efficacy of such applications be attributed rather to the saline particles being taken into the system by absorption, and giving acrimony to the general mass of circulating fluids, than to their acting merely as topical applications? That they may be admitted into the system *ab extra*, so as to produce very powerful effects, will probably

trical shocks were also passed through the tumour every day for a month, but without any apparent advantage. This young lady was in the habit of drinking large draughts of cold

H water.

ptobably appear from the following case, as related by Doctor Sherwen in his letter on Scurvy.

“ A. D. 1789, Virgo quædam, anno ætatis suæ quadragesimonono, habitu corporis macro et attenuato, et colore oris obscuro, ob tumorem mammæ durum, quem per aliquot annos antea persenserat, at jam, majore affecta dolore, et tumoris magnitudine crescente, *extractum cicutæ* ex ordine ingressa est. In reliquis valetudine bona semper potita fuerat.

“ *Extractum cicutæ*, et caput et stomachum cum dolore afficiens ommittebatur, et chirurgi perclari consilio, thermis salis nigri (Anglicè Bay-salt) et mistura communis saturatis, uti incipiebat ægrota. Hoc genere thermarum bis singulis hebdommadis constanter servato, et tumore nequaquam emendato valetudine quidem solita potius diminuta, derelictæ sunt thermæ.

“ Medicina maxime putida, albo ex vino et pulvere verrucarum equi admissarii parata, quasi medicamentum canceri certissimum jam commendata est. Hoc usque utebatur quoad pulveris unciz quatuor vel amplius exhaustæ. Hoc tempore, ægrota, gradatim et aperte, sine ullo alio peculiari morbi indicio, vires amittere cæpit.

Tantum

water. She began in February 1798 to inhale eight quarts of oxygene-gas with twelve of atmospherical-air daily till the latter end of July

Tantum fuit debilitatis incrementum, ut demum erat necesse eam per scalas fursum deorsum portare, quamvis sæpe in periculo ne deficeret.

“ In hoc statu dum nullo alio quam debilitatis morbo laboraret, visa est a medicinæ Doctore Reynolds, qui cum magna veritate atque etiam accuratione terminationem fatalem prædixit, quod accidit ad finem unius hebdomadæ a die quo illam visít. Duos ante mortem dies, sanguis ex gingivis constanter fluere cæpit, et minus unâ horâ postquam expirasset. Facies et corpus totum ad cæruleum perlevem mutare cæpit. Color singulis horis lividior fiebat donec fere extiterat penitus niger; et quamvis corpus erat pertenuè et tempus frigidulum (quippe medio erat Martis 1790) putrefactio minus duobus diebus superavit omnia quæ unquam memini in hac regione vidisse in corporibus plenissimi habitus, etiamque extremo momento ante sepulturam vel etiam fervidissimo tempore æstatis.

“ Hunc fuisse casum scorbuticum insidiosè tardeque repentem semper putavi ex quo thermæ salitæ fuissent adhibitæ. Hoc constat thermas esse factus multo validiores quam chirurgus jusserat: valde suspicor saturatam fuisse solutionem, propterea quod ad imum balnei credo semper

July when the tumour was reduced to the size of a pullet's egg. She now left off the vital air, finding no inconvenience from the tumour, nor has it since that time grown any larger.

It will be generally found that persons who have these monstrous enlargements of the thyroid glands drink much cold water, and may not this chill these glands, and bring on this disease? It is found to consist chiefly of fat; and the alkali which enters strongly into the vascular frame uniting with this fat forms soap. The absorbents being roused into action by the vital-air which is known to produce leanness*, take up this saponaceous matter and

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thus

semper fuisse aliquod sal indissolutum. Hoc tamen pro vero non asseverabo. Tres ferè menses post thermas derelictas terminatio supervenit fatalis: quam sæpe utebantur jam non constat."

* Vide BEDDOES on CALCULUS and SEA-SCURVY,

thus the disease is removed, *cito, tuto, et jucunde*. The Peruvian-bark, lime-water, and kali sometimes are of service, and I have seen lozenges of nitre, taken in the mouth, and dissolved gradually, of service. Does this act then by imparting oxygene in the system? It might be used in conjunction with the vital-air. The Flor. Zinci have lately been recommended in Germany, and so has the Cicuta, but neither have answered in the hands of medical practitioners in England, who have strictly adhered to the rules laid down by the gentlemen who first proposed these remedies. Doctor Gautieri * a very ingenious physician strongly recommends the different preparations of mercury, and says he has cured ten cases out of fifteen with it. I believe myself that in some cases it might be employed with advantage,

* Vide Tyrolensium Carynthiorum Styriorumque Struma, A Josepho Gautieri, M. D. Observata et descripta. Vindobonæ apud Boosey Londini.

vantage, for the oxyd of mercury in passing through the human body, parts with its oxygene, and it is this oxygene alone, which remains combined with the system, that the effect produced by oxydated mercury is owing, and therefore rouses the absorbents to action; and if the vital air is administered at the same time, its operation will be quickened.

Stimulants should be applied externally, as liq. c. c. vol. Electricity, soap plaster, &c.

SECTION

SECTION VII.

HYDROCEPHALUS.

HYDROCEPHALUS is ranked by some as a species of Scrophula. The first symptoms are great restlessness, violent pain in the head, generally confined to one side, especially above the eyes and in a direction between the temples; sickness at stomach, an itching of the nose, loss of appetite, a fallow and sometimes very white complexion. The bowels are in general costive, and it is with difficulty that stools can be procured. These are generally of a dark greenish colour, with an oiliness, or glassy bile, rather than the slime which accompanies worms, and they are for the most part extremely offensive. Febrile symptoms ensue which exacerbate towards evening,

evening, great drowfiness, languor and peevishness. As the disease advances, the pulse is usually slow and heavy. In the commencement of the disease the pupils are very much contracted, but as the disease advances a dilatation of the pupil takes place, chiefly in that eye, on which side the fluid is collected. The child will at intervals scream out, and have frightful dreams. It will pick the bed-clothes, have *subfultus tendinum*, and talk incoherently. In this state I have known children to linger out a fortnight and sometimes three weeks, occasioning the most poignant distress to those around. Doctor Percival observes that Hydrocephalus derives its origin sometimes from inflammation, but most frequently from struma and laxity of fibre, inducing glandular obstruction and feeble action of the lymphatic system, all which dispose to an effusion of water in the brain. The observations of Bonnetus

netus * on this disease are the best to be found among the ancient writers, but I much doubt whether or not he ever observed one half the morbid appearances in the heads of those persons he opened who died in consequence of the effusion of water which he relates with so much scrupulous exactness. The theory of dropsy as established by Doctor John Brown and adopted by his pupils, and those who practise on what is vulgarly called the *Brunonian System*, is most generally found to be successful excepting in a few instances where it has been injudiciously applied, for it is now proved by rational practitioners that until the excitement is increased by such remedies as will be hereafter pointed out, that no just expectations of cure can be entertained. Accumulations of water in the brain, producing those symptoms which characterize Hydrocephalus, are the same

* Bonnetus Sepulchretum Anatomicum.

same with every other case of Asthenia, or Idiopathic affection, depending upon pure debility, which though extended to the whole system is more prevalent in the exhalent and absorbent parts of it, and more especially affecting the exhalents and absorbents of the brain.

It is in the early stage of the disease that medicines can alone be of service. When the affected side can be distinguished, the trephine should be applied. When the water is supposed, from the mildness of the symptoms, and their gradual progress, to be effused between the dura and pia mater, and when a very evident fluctuation can be felt, chiefly at the bregma, we ought to puncture without hesitation the dura mater: as this can be done without danger, it may give immediate relief, and may have some chance of producing a cure. Should it be thought expedient to perform the

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operation,

operation, the dura mater should be punctured cautiously with a lancet, at the side of the bregma, or as far as possible from the superior longitudinal sinus. Those who are attentive to the commencement and progress of the disease, will with the greatest facility distinguish it from worm fever, to which in its early stage it bears a strong analogy, and for which it is frequently mistaken.

Hydrocephalus is distinguished from Apoplexy by its being attended with fever, and from nervous fever by the paroxysms being very irregular, with perfect intermissions many times a day. In nervous fevers the pain of the head generally affects the middle of the forehead: in Hydrocephalus it is generally on one side of the head. Doctor Darwin, whose opinion carries the greatest weight, supposes that the great disposition in persons labouring under the disease, to lie down immediately after having

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ing raised their heads from off the pillow, is owing to the pressure of the water on the large trunks of the blood-vessels entering the cavity, being more intolerable than on the smaller ones: for if the large trunks are compressed, it must inconvenience the branches also; but if some of the small branches are compressed only, the trunks are not so immediately incommoded. I think it is highly probable that where one eye is affected the disease exists in the ventricle of that side. Some authors assert that this disease seldom appears after the thirteenth year, whereas it daily occurs in all ages from two years to thirty *, though it attacks chiefly children.

A woman in the parish of St. Giles's Bloomsbury was seized with Hydrocephalus in her

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twenty

* Vide MONRO's three treatises on the Brain, the Eye and the Ear. The Doctor mentions the case of a woman who had Hydrocephalus in her twenty-sixth year.

twenty-sixth year. She was treated by the medical attendants in the usual way, by having recourse to bleeding, purging and other evacuations. She died on the twelfth day. Upon opening the head, I found the vessels of the brain very turgid, though she had lost thirty ounces of blood. The anterior ventricles were filled with a diaphanous fluid. The foramen in the septum lucidum was so distended as to admit the top of my little finger. The tunica arachnoidea was opaque and thickened. In all there were about four ounces and a half of water in the ventricles. In the pericardium there was found more fluid than is usual in a healthy state.

It is a melancholy fact, that hundreds of children die annually of this disease who might perhaps under the care of skilful persons have recovered.

The

The remedies which have been most commonly resorted to for the cure of this complaint, are Mercury, blisters applied on the head, calx zinci, squills, opium, and digitalis, and of late the fol. doron. German. Now as all these remedies generally fail, it is proper to propose some others.

So soon as this disease assumes the character of Hydrocephalus, the head should be immediately shaved, and from eight to a dozen leeches applied. After they fall off, blisters in the direction of the sutures ought to be laid on, and electrical sparks should be passed through the head in all directions. The bowels are best emptied with large doses of hydrag. muriat. mitis. A generous diet should be enjoined to invigorate the system, and the alimentary canal in particular.

The oxygene-gas which has already been shewn to be so powerful in rousing into action
that

that set of vessels which in this disease is inert and paralytic should be administered daily diluted with atmospherical air, suited to the age and constitution of the patient. In short, whatever will rouse the absorbent system to a vigorous action should be employed, since we find by our researches into the animal œconomy, that the absorbents do not act by capillary attraction but with vital energy, so their action may be either excessive or diminished.

Opium * in large doses is found to be very beneficial as a *powerful stimulant*. Sternutatories

* Opium although much used in medicine, is scarcely ever given in sufficient doses to answer the wished-for design. Its qualities do not seem known to those Physicians, who in books and lectures assume to themselves the whole province of guiding the practice of physic. Instead of making it the highest stimulant in nature they call it a sedative. They tell us it alleviates pain, but it does no such thing; it removes the cause, whenever *that* depends upon debility. It is a sovereign remedy, but much misapplied both in our Hospitals and in private practice.

ries have been employed with advantage ; for this purpose one grain hydrargy. vitriol to ten grains of liquorice powder, might be used as a snuff.

It will be unnecessary to relate all the cases in which the method of cure I have recommended has proved successful ; the following are selected from several more which were exceeding alarming in their attack.

CASE

CASE I.

Case of Mary Watkins.

MARY Watkins aged fourteen years was seized March 4th 1798 with a violent pain across her forehead as she was sat at work, attended with great sickness at stomach, and sudden languor. She had felt herself slightly indisposed a few days before, and upon a supposition that it arose from worms, an Electuary of sulphur and treacle had been given her. She had on the preceding night been exposed to great cold.

On the 6th she complained of vertigo, acute pain in her head, particularly above the eye-brows—during the night she talked incoherently and called frequently for something to drink. On the 7th the pupil of her left eye was much dilated,

lated, and she vomited up a quantity of slime. The gentleman who attended her bled her largely in the left arm, and gave her a dose of calomel and rhubarb—at night one dram ung. hyd. F. was directed to be rubbed in between the thighs—she was denied animal food, and allowed nothing but barley-water to drink.

On the 8th her pulse was very feeble, she had been comatose during the night, and had subfultus tendinum; she picked the bed-cloaths and frequently tried to get out of bed—During the whole of the night she constantly kept her hand to her head. Blisters were applied between the shoulders, and to the calves of the legs.

On the 9th I saw her for the first time. When I entered the room, she had a wild stare with her, and muttered something in a low voice—at times she was delirious. I

K

emptied

emptied the bowels with ten grains of calomel ppt. and after shaving the head applied twelve leeches to the affected side, after which narrow strips of emp. vesic. were applied in the direction of the sutures. In the evening I passed several electrical shocks in various directions through the head, and gave her three drams of Æther vitr. c. with one hundred drops Tinct. opii in a glass of rum and water; she had a very good night.

In the morning her pulse was sixty-four—she knew and conversed with her friends, and appeared much relieved.

March 10th Electricity was repeated—the blisters ordered to be kept open with the cerat. canth. Directed the Pul. Sternut. (as before mentioned) to be snuffed up three different times during the day—the calomel was repeated at six o'clock in the evening. She was allowed

lowed any thing to eat or drink she wished for. Rum and water was given her for common drink. At bed-time ten grains of the Amm. præp. with eighty drops of laudanum was given her in a saline draught.

11th. She is surprisfingly better to-day, is got out of bed, and fits up in an arm chair—has little or no pain in her head—complains of numbness in her legs—directed them to be put into the warm bath—at night gave two grains of opium in a pill with the volatile alkali in rum and water.

12th. She mends very fast : has had a good night, and all the other symptoms are alleviated. Gave her twelve quarts of oxygene-gas and fifteen of atmospherical air, which she inhaled with ease.

The electricity omitted ; repeated her opium and volatile at night. From this time she gradually regained her strength, the symptoms subsided, and by the first of April she was quite recovered. She continued the vital-air till the 29th of March.

12th. She made very far : passed a good night, and all the other symptoms are alleviated. She has twelve years of oxygen gas and fifteen of atmospheric air, which she inhaled with ease.

CASE

The

CASE II.

Case of Mary Durand.

For the particulars of this Case, I am obliged
to DOCTOR THORNTON.

MARY Durand, aged nine years, living at No. 53, in Jermyn-street, laboured under Hydrocephalus. Among other symptoms, she had an heavy oppression in the head, which obliged her frequently to recline it on a pillow : complete blindness of the right eye, and fits, which would frequently seize her so suddenly that she would fall down from her chair and remain convulsed often for near half an hour, but without foaming of the mouth, as in Epilepsy. Doctor T. being applied to gave her the vital air with steel and bark
in-

internally, but the only alteration produced was an amendment of health. As her pulse was remarkably flow, not more than 64 beats in a minute, on the tenth day, he gave her thirty quarts of oxygne gas, moderately diluted, the effect of which was an immediate return of vision, and she has remained free from head-ache and fits, with distinct vision now above a year.

The usual method of treating dropfies, by repeated bleeding, vomiting, purging, clistering, evacuation by urine and the skin; in one word, opening and relaxing all the excretories and weakening the activity of the absorbents every where, which is the undeniable practice for the cure of a disease, the cause of which is that very state of vessels which these remedies produce, is so absurd and contradictory, that I do not wonder that dropfy in all its forms, and particularly in the present

present (Hydrocephalus) should baffle the art of practitioners. The cause of dropfy so far as its respects the collection of water, is easily explicable upon the doctrine of Doctor Brown*, but altogether inexplicable upon any other. For the universal debility, and exhausted excitability, followed by laxity and atony, are chiefly predominant in the extreme red arteries, and the exhalents immediately continued from these, as well as in the commencements of the absorbent veins: and it is often urgent in a particular set of these vessels only.

Repeated successful trials of the mode of cure I have recommended, sufficiently vouch its propriety. “ A case † given up by the ordinary

* *Elementinæ Medicinæ*, Chap. 627, Editio Nova, a
THOMAS BEDDOES, M. D.

Vide JONES'S Inquiry into the State of Medicine.

“ dinary practitioners, was readily and radi-
 “ cally cured by my good friend Dr. Wain-
 “ man, and a little before the time that I am
 “ writing this, another pupil of Dr. Brown,
 “ the ingenious Mr. Hogan, performed a
 “ cure of universal dropfy upon an old sailor
 “ near 80 years of age in a vessel that was
 “ cruising in the North Seas. This patient
 “ laboured under universal anasarca and ascitic dropfy. His legs were so œdematous as
 “ to be swelled to an enormous bulk—No
 “ evacuation * of any kind was administered
 to

* It is a fact that the new system of medicine introduced by the late Doctor JOHN BROWN, has produced a more remarkable revolution, both in the theoretical and practical departments of this branch of science than is to be found throughout the whole history of medicine. Under all the former doctrines of this art, and under almost every modification of disease, we find an universal sameness in the method of cure. Bleeding, purging, vomiting and every other mode of evacuation, were indiscriminately applied in almost every disease: and even in those cases in which stimulants were employed or an invi-

“ to this patient. The cure was trusted to
 “ spirituous regimen : and in less than three
 “ weeks time the patient was conducted from
 “ the jaws of death to the most entire and per-
 “ fect health.” Having strongly recommend-
 ed the spirituous regimen, in the cure of Hy-
 drocephalus, it might not be improper to ob-
 serve here, that some persons have affected to
 reject the Brunonian system upon the very
 grave and solemn ground of its being favour-
 able to intemperance. To those however who
 will take the trouble of making themselves ac-

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quainted

invigorating plan of cure pursued, they were frequently
 alternated with evacuants, as if certain diseases could not
 be eradicated, except by the opposite means of inducing
 debility and vigour at the same time in the body—the
 practice founded on the new theory, in one respect re-
 sembles the old, as the same method of cure is employed
 in the far greater number of diseases ; the old theorists
 universally applied evacuants, and endeavoured to debili-
 tate the system by every means. The application of sti-
 mulants is nearly as universal, on the principles of the
 new Theory.—HERDMAN'S ESSAY ON THE CAUSES AND
 PHENOMENA OF LIFE.

quainted with its principles, it will be only necessary to state, that such persons do not understand the subject. I make no doubt but I shall incur the displeasure of those, who without ingenuity to invent, or candour enough to acknowledge the merits due to others, hastily condemn new doctrines before they have bestowed the necessary pains, which are required to understand them. I every day see with regret, the power of prejudice in favour of old erroneous systems; and how great the resistance is even to the most certain and luminous experiments. Prejudice has certainly a great share in this repugnance; but above all self-love dreads to adopt new truths, because they carry with them conviction, and a tacit avowal of ignorance: hence arises the difficulty of bringing those who are advanced in years, and men of learning who have already acquired reputation, to admit of new discoveries. “ It appears to me,” says Lord Bolingbroke, “ that

“ that the author of nature has thought fit to
 “ mingle from time to time, among the so-
 “ cieties of men, a *few*, and but a *few* of
 “ those, on whom he is graciously pleased to
 “ bestow a larger portion of the ætherial spi-
 “ rit, than is given in the ordinary course of
 “ his providence to the sons of men. Look
 “ about you from the palace to the cottage :
 “ you will find that the bulk of mankind is
 “ made to breathe the air of this atmosphere,
 “ to roam about this globe, and to consume
 “ like the courtiers of Alcinous the fruits of
 “ the earth—*Nos numerus fumus et fruges*
 “ *consumere nati.* When they have trod this
 “ insipid round a certain number of years, and
 “ begot others to do the same after them,
 “ they have lived, and if they have perform-
 “ ed in some tolerable degree the ordinary
 “ moral duties of life, they have done all they
 “ were born to—look about you again, nay
 “ look, perhaps in your own breast, and you

“ will find that there are superior spirits, men
 “ who shew, even from their early youth,
 “ though it be not always perceived by others,
 “ perhaps not always felt by themselves, that
 “ they were called into this world for some-
 “ thing more and better ; these are they who
 “ engross almost the whole reason of their spe-
 “ cies, who are born to instruct, who are de-
 “ signed to be the tutors and guardians of hu-
 “ man kind : when they prove such, they ex-
 “ hibit to us examples worthy of the highest
 “ praise, and they deserve to have their names
 “ recorded, instead of a crowd of warriors
 “ who have laid the world waste by their ra-
 “ vages, whose worth is estimated by the
 “ quantity of innocent blood they have spilt,
 “ and with whose sanguinary feats, the page
 “ of History is crowned and disgraced.”

SECTION

SECTION VIII.

RACHITIS.

THE Rachitis or Rickets, to which children are so peculiarly subject, is another modification of Scrophula*. This disease so destructive to the infant race of this country, called by the French, the *English disorder*, never

* Monsieur Portal, a very ingenious French Surgeon, who has lately published a treatise on Rachitis, is of opinion, that the rickets is very rarely an original disease, but is almost always the result of some internal and antecedent affection. Numerous observations, he thinks, prove that there are six different species of this malady: to wit, the venereal, the scrophulous, the scorbutic, that which accompanies or which succeeds abdominal obstructions; and lastly that which may be denominated Rheumatic or Gouty.

Vide Observations sur la Nature et sur le traitement du Rachitisme par Monsieur PORTAL.

ver appeared in Britain till manufactures began to flourish, and people attracted by the sordid love of gain, left the country to follow sedentary employments in great towns. Glisson defines Rachitis to be a disease *sui generis**. I never saw the rickets myself but in those children in whom vestiges of a scrophulous affection could be readily traced.

It generally shews itself first by an enlargement of the head, great weakness in the spine, a prominence of the forehead, and sudden emaciation of the whole body. The muscles feel flaccid, the ribs lose their convexity and become flattened on the sides, while the sternum is pushed outward. The abdomen is tumified and feels hard, and the child is generally costive. The child loses its usual cheerfulness, and becomes dull and peevish. In
some

* GLISSON de Rachitide.

some you observe great acuteness and mature sensibility, while in others stupidity and fatuity appear. The dentition is very slow, and I have remarked that those teeth which come out, have a very smooth feel, and soon lose colour. Little or no fever attends this stage of the disease, but as it advances the pulse is more frequent and the appetite very keen. The appearances on dissection shew a melancholy state of the disease *. In general all the abdominal viscera are preternaturally enlarged. The lungs filled with tubercles and adhering to the pleura. The mesenteric-glands indurated. The brain flaccid, and all its cavities filled with an effusion of a serous fluid. The bowels loaded with slime and mucus. The bones are so soft as to be easily cut through, and the muscular parts very tender and loose.

For

* Vide BAILLIE'S MORBID ANATOMY. MORGAGNI de Causis et sedibus Morbum. BONETUS Sepulchretum anatom. cum multis aliis.

For a proximate cause Doctor Cullen * assigned a deficiency of osseous matter in the fluids, depending upon a general laxity and debility of the moving fibres of the organs that perform the functions of digestion and assimilation.

Monsieur Bonhomme †, a celebrated French chemist, supposes the nature of the rachitic disorder arises on the one hand from the development of an acid approximating in its properties to the vegetable acids, particularly the oxalic, and on the other from the defect of phosphoric-acid, of which the combination with the animal calcareous earth forms the natural basis of the bones, and gives them their solidity.

From whence it follows, that the indication resulting from this proposition, if once adopted,

* Clinical Lectures.

† Annals de Chémié.

ed, would be, that the treatment of rachitis must depend on two principal points, namely, to prevent the developement of the oxalic-acid, and to re-establish the combination of the phosphoric-acid with the basis of the bones to which they owe their solidity.

The author proves by experiments and observations in the first place, that alkaline lotions to the parts affected with rachitis, contribute to their cure*, next that the calcareous phosphate taken internally is really transmitted by the lymphatic passages and contributes to ossification; and lastly, that the internal use of calcareous phosphate, whether alone or combined with the phosphate of Soda, powerfully contributes to restore the natural proportions in the substance of the bones, and accelerate the cure of rachitis.

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* See also NICHOLSON's Journal of Chemistry, No. 4.

The effect of the action of acids upon bones, was long before known; that is to say, that when deprived of calcareous phosphate and reduced to the gelatinous parenchyma which forms one of their elements, they lose their consistence and become flexible. Hence it was already conjectured by various Physicians, that the rachitis was the effect of a peculiar acid.

Every one who is attentive to the diseases of children must have observed a disposition to acescence in the primæ viæ. The odour which characterizes acescence is often manifest in their breath, and even their perspiration. The bile which is the natural cathartic of the body corrects this disposition; but we generally find a deficiency of this secretion in rachitic infants. It does not colour their excrements, and the acids accordingly are developed in a very decided manner. They disturb the

the circulation and attack and soften the bones. As it is by defect of animalization that these acids develop themselves, it follows that their character is analogous to the fermentescible vegetable acids, and more or less to the oxalic acid: and that on the contrary, the animal acid of phosphoric acid ceases to be formed, and to unite with the animal calcareous earth; whence they are deprived of the principle of their solidity.

In order to establish the doctrine of Monsieur Bonhomme upon precise experiments, it is requisite to analyze rachitic bones comparatively with those of healthy individuals of the same age: and as it is known that the urine of rachitic subjects deposits a great quantity of a substance of sparing solubility and earthy appearance, it would be advantageous to make a

M 2 complete

complete analysis of this urine and its sediment*.

Doctor Darwin is of opinion that if the Theory of Monsieur Bonhomme were just, the soft parts of such bones should shew evident marks of such acidity after death, which he believes has not been observed. Nor is it,

* It is known that when the urine contains disengaged phosphoric-acid, as happens to aged individuals, and in some peculiar circumstances of the system, if lime water be poured in, there is a speedy deposition of calcareous phosphate. It is also known that when a solution of the nitrate of mercury is poured on the fresh urine of adults, a rose-coloured precipitate is formed, which is a phosphate of mercury produced by the decomposition of the phosphates contained in the urine. These two proofs are therefore extremely proper to ascertain the presence of phosphoric-acid, whether free or combined, in a fluid which in its natural state contains a remarkable proportion. Besides this principle, the urine deposits more or less of sediment, either gelatinous or an earthy appearance; and lastly by evaporation, a saponaceous and saline extract, in greater or less abundance is obtained by evaporation.

adds he *, analagous to other animal facts, that nutritious fluids secreted by the finest vessels of the body should be so little anamalized, as to retain acetous or vegetable acidity.

Bad nursing, and an over-proportion of food for the age of the child †, inattention to cleanliness; cold either without moisture or with it, want of exercise, bad air and innutritious food, are the chief causes which bring it into action. I am inclined to think that this disorder first takes its rise from the mouths of the lacteals being

* DARWIN'S ZOONOMIA.

† I have been often surpris'd to see the quantity of food some ignorant and obstinate nurses will give infants; far more at each meal than the stomach can possibly contain—this they do with a view of quieting the child and inducing it to go to sleep, whereby they may be exonerated from the trouble of nursing it. The ignorance of parents is no less conspicuous, in the quantity of wine, fruit, &c. they indulge children in; and how easy is it to trace the diseases of children to the source from whence they originate.

being obstructed by mucus; from a deficiency of bile, and the disengagement of an elastic gas in the intestines during the process of fermentation. The digestion then becomes impaired, and a laxity and debility pervade the whole system. Hoffman supposes it to depend on a deficiency of nutrimental juices, depraved digestion, ill conditioned chyle and obstructed lacteals, and observes, “ *Quam maximè autem hoc loco accusari etiam debet bilis defectus, vel inertia à præternaturali hepatis constitutione inducta, ob quam non modo digestio valdè læditur, sed oscula quoque tunicæ intestinorum villosæ, minus vitè à mucositæ sua liberata, chylum ægrius recipiunt et transmittunt.*”—Hoffman de atrophîâ infantum.

Sydenham (since whose time the region of human maladies has been more accurately explored) no doubt from his recommending cathartics, supposed it to originate in a foul state
of

of the stomach and bowels, and the high authority of the learned author of the Guide to Health, confirms this opinion; for he says that after thirty years experience in a neighbourhood in which rickets abound, I do not recollect a single instance in which this * cathartic failed with the assistance of tonics to effect a cure.

Most scrophulous and rachitic patients are very pale, and have a blueness about the ends of their fingers; and under their eyes, which indicate a deficiency of oxygene in the blood, and the inirritability of the muscles evinces this also; for upon restoring that principle either by the organs of digestion or through the medium

* R. Tamarind: fruct: ʒj. Fol: Sennæ ʒiv. Rhei: incis ʒ iij. coque. q. s. Aquæ, Colaturæ ʒvj. Dissolv. Mannæ et Syr. Rosæ sol a ʒij. fiat mixtura. c. c. c. ij. plus minus pro ætate.

GUIDE TO HEALTH, Vol. II. page 285.

dium of the lungs, with proper cathartics, exercise and wholesome air, they soon recover without much medicine. I have never seen any good derived from the whole class of tonics with which our materia medica furnishes us, and which Physicians have extolled as specifics—a favourable subterfuge for medical ignorance. The Ens-veneris, Soda, and Cicuta are mere trash. The acidity so predominant in young rachitic subjects should be corrected by giving rhubarb, magnesia and vitriolated kali. Cold bathing and exercise—friction all over the body with a brush—the bowels kept clear from fordes by large doses of calomel pp^t. and a plentiful supply of vital-air by the organs of respiration, will in all cases where good can be done, effect a cure.

Of the benefits arising from the vital-air I have seen several instances, but the following case

case the first in which I recommended it, deserves notice.

Miss G. A. aged two years, very thin and tall of her age, about nine months ago, complained of a pain in the back about the third lumbar vertebra. She was so weak in that part as always to require support behind. A most singular enlargement took place, which was particularly conspicuous in the extremities contiguous to the articulations, and in the bones of the cranium. Her countenance became pale—she had a very craving appetite, and shewed a great disposition to eat chalk. Her belly became tumid and hard, and her breathing laborious, which last symptom arose from a very small thorax, much flattened in before, and at its sides.—Emetics, cathartics, and absorbents were the chief medicines prescribed as occasion required, and in the mean time an infusion of the Cinchonæ with Tinct. Ferri

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was

was given three times a day. Notwithstanding she grew daily worse, and was so emaciated as scarcely to be recognized by her friends.

Under these circumstances I recommended the vital-air which she inhaled daily four quarts to six of common air. At night she took pills composed of Ferr. Vit. and Ext. Cinchonæ, and five grains of Calomel at bedtime once a week. This plan being pursued four months in conjunction with exercise, nutritious diet, and a fine open air, she quite recovered, and is now a healthy girl.

This case I related some time back at one of our Medical Societies in this City, where the cure was attributed by the Anti-Pneumatics (if I may be allowed the expression) to the steel medicine, diet, &c. but as this medicine when given *per se*, is ineffectual from the small quantity

quantity of oxygene it deposits in the constitution, it certainly must be acknowledged that it was the supply by the organs of respiration, that restored the young lady to health.

There appears a propensity in human nature to resist conviction, and that propensity is exceedingly conspicuous in the present instance, in which prejudice opposes palpable evidence. " And although like Naaman the Assyrian I " cannot tell why the waters of Jordan should " be better than Abana and Pharpar, rivers " of Damascus," yet since experience has proved them so, no reasoning can change my opinion of the good effects the *airs* have on this and a variety of other diseases. For

" Slight efforts lead not to success or fame,

" By care and toil the wise pursue their aim."

MENAND.

An impaired digestion I before mentioned as one of the primary symptoms of rachitis: this,

as the late ingenious Physiologist Mr. Hunter proved by experiments on various animals, arises from the diminution of animal heat, which quickens the process of digestion. Now the generation of animal heat, according to Doctors Goodwin and Crawford, and the Rev. Mr. Townsend, is from the decomposition of oxygene-gas in the lungs during respiration*: thus as I suppose a part of the oxygene unites with the iron contained in the blood, and converts it into an oxyd; another and a greater proportion unites with the carbon brought by the venous blood to the lungs, and forms carbonic-acid gas, while another

* A Theory different from this has been offered by Mr. Rigby, who observes, " that the sense of superior heat which is obviously felt in the region of the stomach, is a proof that it be not the immediate source of all animal heat, that at least a considerable portion is generated there, and confirms the foregoing opinion, that heat is generated during the decomposition of our food in the stomach." RIGBY ON ANIMAL HEAT.

another portion of the oxygen unites with the hydrogen brought in the same manner, and forms water.

A portion of this oxygen which unites with the iron and hydrogen, becomes fixed on these substances, and gives out the heat which supported it in a gaseous state, while the remainder forming carbonic-acid gas which has a less capacity for heat than oxygen-gas, gives out a part of its caloric. Thus respiration is the cause of a continual extrication of heat in the lungs, which being conveyed by the blood to all parts of the body, is a constant source of heat to the animal. We may therefore consider respiration as an operation in which oxygen-gas is continually passing from the gaseous to the concrete state: it will therefore give out at every instant, the heat which it held in combination.

These

These important facts enable us to explain the reason, why the inhalation of a larger proportion of oxygene-gas than what is received from the atmosphere during the process of respiration, by raising the temperature of heat in the body, thereby accelerating digestion, or assisting it when impaired, is of so much service in Rachitis*. And is not the costiveness attendant on the rickets to be attributed to a deficiency of oxygene, as well as the paleness and fallow complexion? Doctor Thornton observes, that when he made his dyspeptic patients breathe super-oxygenated air, they not only

* As there is a scarcity of oxygene in many of the diseases to which children are incident, all such as are rachitic, badly nursed, potbellied, or disposed to hydrocephalus internus, or water on the brain, should pass the greater part of the middle of the day in fine weather in the nurse's arms, or at play according to their age and other circumstances in the neighbourhood of shrubberies, or more extensive plantations.—ARCHER's Miscellaneous Observations on the Effects of Oxygene, page 88.

only acquir'd appetite and spirits, but became more regular in their bowels, and rosy health appeared in their cheeks. I never inhale the vital-air myself but it gives me a voracious appetite, and raises my spirits much above the usual standard. We know also from experience, that oxygene increases the secretions in general, and therefore may increase the quantity of bile, which is proved to be the natural cathartic of the body, and at the same time gives tone and vigour to the secreting vessels; it is highly probable therefore that it may improve the quality of the secreted fluid. The effect also before stated well oxygenated air has in raising the spirits, is another desirable object attained in this new mode of treatment; and the case of Mr. Atwood communicated to Doctor Beddoes, and by him presented to the public in the second edition of his inestimable work, entitled, " Further Considerations on
 " the Medicinal use, and on the production
 „ of

“ of Factitious Airs,” and that of Mr. Ruffel, are convincing proofs of this assertion.

Doctor Priestley, whose loss to this country cannot be too deeply deplored by all friends to the investigation of Philosophical truths, speaking somewhere of factitious airs says, “ I cannot help flattering myself, that in time
 “ very great and medicinal use will be made
 “ of the application of these different kinds of
 “ airs to the animal system. Let ingenious
 “ Physicians attend to this subject, and lay
 “ hold of the new *bundle*, which is now pre-
 “ sented them before it is seized on by *rash*
 “ *empirics* ; who by an indiscriminate and in-
 “ judicious application, often ruin the credit
 “ of things and processes, which might o-
 “ therwise make an useful addition to the
 “ materia and ars medica.”

Incur-

Incurvations of the spine arising from a scrophulous affection, have already been treated of with so much judgment by the late Mr. Pott of St. Bartholomew's Hospital, that it will be unnecessary to say much on the subject here. The mode he suggested was by applying a caustic on each side of the projection, and afterwards establishing a considerable drain, by converting them into large issues, a plan of treatment which every day's experience proves the propriety of—This was done with a view of exciting a new action, and by that means superseding diseased action*.

A protuberance of the spine proceeding from scrophula might be treated, by putting an issue on each side of the prominent bone, which I suppose acts by its stimulus: which excites into action more of the sensorial powers of irritation and sensation, and thus gives greater

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activity

* POTT'S WORKS, by EARLE, Vol. III.

activity to the vascular system in the vicinity*. Doctor Darwin has found pills composed of Ext. cinchonæ—sod. phosp. and opium combined, of service. The antients recommended compression, swinging, slings to suspend the children by a bandage round the head, and by the shoulders, but they all prove ineffectual. Of late years several kinds of machinery have been introduced into practice with a view of giving support to the spine, by taking off the pressure of the head and shoulders. Monsieur Vacher, an ingenious Frenchman, invented some years ago a machine of which he has given an account in the *Memoires de l'Academie Royale de Chirurgie*, tom. iv. accompanied with a plate. The principle upon which this machine acts is, the keeping of the head in an erect posture, and the spine in as straight a line as it naturally does,

* DARWIN'S ZOONOMIA, Vol. II.

does, or as it possibly can admit of in a diseased state; and in supporting the superincumbent weight of the head, shoulders and upper extremities, from pressing downwards on the distorted spine, and increasing the curvature of it. Since that another machine, or rather an improvement on Monsieur Vacher's, has been invented by Mr. Jones, an ingenious stay-maker of this city, and I believe it has been of service in some cases. Mr. Wilkinson, the ingenious lecturer on Experimental Philosophy at St. Bartholomew's Hospital, has lately recommended to our notice a spinal stay which possesses many advantages over all the rest, by taking off in a very adequate degree, all weight, by giving greater support to the shoulders, neck and head. He has also written some excellent observations on distortions of the spine, well worthy the perusal of those who wish to attain further information on the subject. Men who have studied Anatomy,

are the best qualified to judge of the necessary powers to be applied, and the mode of their application.

Of the Spina bifida I shall refrain from offering any observations at present. It is a true scrophulous affection, and is incurable by any means yet recommended. A quack in this town undertook for a trifling sum of money last winter to cure a child about six months old, who had a tumour of this kind situated on the third dorsal vertebra. This he undertook to effect, by evacuating the contents with a lancet. When he came next day, he found the child dead, and to reconcile its disappointed parents to their loss, and his ignorance, pretended that it was occasioned by the compression owing to the child's laying on its back during the night. I examined the diseased parts after death, and have a drawing of them by me.

Having

Having pointed out in as concise a manner as possible those seats of the disease in the system where we are to look for the greatest danger, I shall proceed to consider the general history of the disorder, and examine the different opinions of the various writers on Scrophula.

Our schools of physic lay great stress on parthology, or certain appearances in the patient, by which they suppose the nature, the stage, and result of the disease may be pointed out. Those criterions are to be sought after in the eyes, the nose, the skin, the tongue, the pulse*, and the gestures. That those particular

* A knowledge of the pulse, is highly necessary to a good Physician ; though it is the source of a number of errors in practice, from the false inferences, and hasty conclusions, which medical men draw upon the slightest deviation or irregularity in this thermometer of the human body. To the attainment of this object, many and considerable obstacles oppose themselves : for the pulse not only varies in quickness, at different periods of life, but

ticular deviations from the patient's natural appearance during health, do appear frequently

but different temperatures, and even statures, have corresponding varieties of pulse. Thus the pulse in women is ordinarily found to be about one seventh quicker than in men; the proportion is still greater in women during courtship; in men of a short stature, it is quicker than in those who are tall; and in children than in adults. The pulse is said to become slower from forty-five to fifty or sixty years of age, but afterwards to become quicker; a kind of hectic being supposed to be the usual concomitant of age, which makes the pulse in old persons, approach to the feebleness and velocity of the infantine pulse. Thus the pulse, which at the moment of birth, beats 134 strokes in a minute, decreases in velocity to the period of manhood, when its medium may be reckoned at 75; is stationary at 50 or 60, according to the degree of health, or firmness of constitution of the subject; and then increases again as the body becomes enfeebled by age—the pulse varies also at different times of the day. In the morning before breakfast it is slowest; it becomes quicker after every meal, and that in proportion to the quantity and quality of the food taken into the stomach, and becomes slower again at night during sleep, if the stomach has not been too much loaded, or defrauded of its necessary proportion of food. The different passions operate strongly on the pulse; as fear, anger,

ly is most true: but the major part of them are fallacious and inconclusive, because they are often produced by opposite causes. Thus we are told by writers, that the attacks of scrophula are peculiar to the sanguine: and those constitutions which possess fine skins, a soft muscular flesh, with a rosy complexion, a thickness of the upper lip, and blue eyes; as also that those persons who have red or light coloured hair are particularly subject to this disease.

An Astronomer may as well expect to draw a just conclusion of the real motions of Jupiter, or any other primary planet, from their apparent contorted and looped evolutions; or
a Phi-

anger, joy, love, sorrow, &c. Those who would wish to be acquainted with this important branch of Physiology, must consult the writings of Falconer, Adair, Sir John Floyer, Dr. Bryan Robinson, Dr. Heberden, Rumball and other writers of merit.

a Philosopher discover a law of nature in physics, or morals, by an appeal to the categories of Aristotle; or a Critic hope for fame in all the fine arts, when he breathes nothing but the rules of Aristotle, Quintillian and Longinus; as a Physician can hope to discover the nature and causes of diseases, when he rears his inductions on false evidence, and anomalous signs.

The first attacks of Scrophula as described by some authors are no less extravagant than absurd. The following quotation, from a recent publication will serve for an example.

“ The infinite variety of complaints an impure or infected state of the blood induces,
 “ almost exceeds belief; and hence the new
 “ and deceptive forms a scrophulous taint puts
 “ on, which often deceives the most eminent
 “ of the faculty, and baffles the best intention
 towards

" towards a cure. An impure or scrophu-
 " lous taint will invade the noblest organs of
 " the human frame, before the patient can be
 " aware of his danger. In the first stage of
 " its invincible attack, a weary pain seizes
 " the joints and muscles, attended with a
 " wasting of the legs and loins. In the second
 " stage the gums swell, grow painful, hot and
 " irritable, and bleed upon the slightest pres-
 " sure: the roots of the teeth become loose
 " and bare, and the breath nauseous. In the
 " third stage, the gums grow putrid, and
 " the teeth black and rotten, the sublingular
 " veins become varicose, and the breath ca-
 " daverous; foetid blood distils from the lips,
 " gums, mouth, nose, and lungs, stomach,
 " liver, spleen, pancreas, intestines, womb,
 " kidneys, &c. Scabs and ulcers break out
 " over all parts of the body, and the joints,
 " bones, and viscera, become morbid. In
 " the fourth stage, putrid, eruptive, and spot-

“ ted fevers ensue, which end in atrophy, or
 “ else follow diarrhoeas, dysentery, dropfy,
 “ consumption, palsy, contraction, melan-
 “ choly and all the long and direful train of
 “ nervous diseases, which to describe would
 “ fill a volume*.” One would have supposed
 that this learned author had been describing the
 sea-scurvy instead of Scrophula, and I doubt
 whether the Herculean remedy which he pre-
 scribes for this melancholy train of human ma-
 ladies, notwithstanding “ the invention of
 “ which has been the result of a long and la-
 “ borious application to the study of unveil-
 “ ed nature—of the properties of air, fire,
 “ earth, water, and in the propagation of
 “ animal

* A patient so grievously afflicted might well exclaim
 with the Royal Psalmist, “ For my loins are filled with
 “ a sore disease: and there is no whole part in my
 “ body.”

PSALM xxxviii. Ver. 7.

“ animal and vegetable life,” will be found effectual. (Medical Mirror, page 130.)

At what period Scrophula first made its appearance in this country, I cannot precisely fix; the history of all diseases is involved in a deal of obscurity, but particularly this. A late writer is of opinion that the *morbus coxendicis* of Hippocrates, is the scrophulous hip of the present day: and that those particular diseases mentioned by ancient authors, as having their origin in (what they term) cold *pituitous humour*, falling on a joint, and which sometimes occasioned luxation; as also the complaints denominated *spina ventosa*, *meliceria*, *Hydartbus*, and *fungus articuli*, are in their symptoms and effects very analogous to the different species of the disease which is generally denominated white swelling.

Scrophula * does not shew itself at any particular age, though it seldom appears before the second year or after the twentieth, nor have I observed it to be aggravated by any particular season of the year. It is to be found in very hot and very cold climates. I have myself seen it among the natives of Balambuang, an island inhabited by Malays governed by a Dutch commandant, and lying almost on the line, in the Streights of Borneo.

The

* Doctor Cullen says that Scrophula generally shews itself first at a particular season of the year; and at some time between the winter and summer solstice; but commonly long before the latter period. It is to be observed further that the course of the disease is usually connected with the course of the seasons. Whilst the tumours and ulcerations peculiar to this disease appear first in the spring, the ulcers are frequently healed up in the course of the succeeding summer, and do not break out again till the ensuing spring, to follow again with the season the same course as before.

CULLEN's First Lines, Vol. IV.

The Chinese are particularly subject to this disease*, nor have they been able, with all their subtilty and pretensions to physick, to discover as yet any remedy for it.

Persons afflicted with scrophulous ulcers walk about the streets of Canton, without any application to them, and with much seeming indifference. They are equally superstitious and shew the same marks of fatuity with the people of this country, who trust their cures to Empirics and Astrologers, with which that country is disgracefully over-run like our own. It is but

* It is highly probable that the innutritious food upon which the lower classes of Chinese subsist, is one of the predisponent causes which brings it into action. While I was in China (between the months of February and June 1796) I was shocked at the scanty subsistence of these abject mortals. Their food consists chiefly of rice, and water. Our horses are better fed in England; and our beggars are regaled like princes, to what mendicants are in China.

but doing justice however to add, that it is only the lower class of Chinese, and not those who have received a liberal education, that intrust their lives to the precarious issue of medicines, prepared and vended by such locusts. And it is right to add to the honour of the Chinese Government, that notwithstanding it is the most despotic and arbitrary on the face of the earth, it reaps no emolument, like others which boast more of liberty, by granting these wretches licence and patents to slaughter mankind. Let me here anxiously caution the unwary of being misled by those who have obtained the KING'S LETTERS PATENT*.

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* It is much to be lamented that in this enlightened age the attention of the Public should still continue to be turned towards Specifics, when it is well known, that the same disease not unfrequently proceeds from a variety of causes, and therefore, properly speaking, *no specific remedy* can exist.

What

The commencement and progress of Scrophula in this country are generally as follow. The lymphatic glands become diseased, and rendered inert and paralytic from the action of some

What reason can we assign then for the astonishing and still increasing demand for *Quack Medicines*, and *Quack Books*? Whence is it, that Quack Medicines and Quack Books are to be found, not merely among the lower classes of society, but in respectable families, and almost in every house? Is it, that they have a higher opinion of such medicines and of such books, than of the judgment, the skill, the extensive experience, of men devoted to the science; of men who have been regularly taught, and who are in the daily habit of distinguishing diseases? No, certainly it is not. In answer to the above queries, I would refer the reader to Knox's Essays, moral and literary, No. 57, page 155, where he will find the mode of College education fairly exposed. A late writer observes, " Motives of personal regard prevent me from discussing the abilities of the different Fellows. The great Leviathan of the College, * * * * *, before his death, is reported to have declared that there was no good in physic, although he realized eight or ten thousand guineas annually by the administration of it.— But here I stop for the present. I shall merely conclude by

some poisonous material, probably an acid, generated during the process of digestion. Slime by little and little adheres to the intestines, and plugs up the mouths of the lacteals and renders them torpid and schirrous. The glands then become large externally and inirritable from being over stimulated. The digestive faculties of the stomach grow languid. The mouths of the lacteals will often inflame and turn to ulcers—a general relaxation and atony pervade the whole system—Small oval or spherical tumours form under the skin, which at first appear like a small knot, smooth and moveable, with some elasticity, and they gradually increase in number and size till they form one hard,

by applying to these gentlemen the memorable words that came from the elegant pen of Junius upon a former occasion: “The feathers that adorn the *College* bird support his flight; strip him of his plumage, and you fix him to the earth.”

SAUMAREZ's Physiology, Vol. I. page 177:

hard, large fixed tumour, chiefly in the neck and behind the ears—they do not give much pain, or is the colour of the skin changed—the joints of the elbows and ancles as well as of the fingers and toes become stiff and painful, and it very frequently happens that an ankylosis of some principal joint remains, though the other symptoms be abated. In some a very bad cough harasses the patient, which I think proceeds from a morbid state of the liver. The four eructations arise from a prevailing acidity in the stomach and the tumid abdomen from the disengagement of elastic-gas in the intestinal canal. The first effect of viscid mucus in the alimentary canal is sedative, as appears by the slow and feeble pulse, languor, and depression of spirits, coldness of the extremities and deficiency of perspiration, which it constantly produces, and which are attendant symptoms in the latter stage of the disease. Hence if proper advice is not had,

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an atrophy ensues, and the unhappy patient will sink under his load of grief and pain, a victim to the want of application of the principles of philosophical analysis to the subject of the *Materia Medica*.

The disease sometimes creeps on slowly for a number of years without producing much derangement in the health of the patient, and instances are not wanting where it has been spontaneously cured, the ulcers healing up, and no new tumours appearing; and as Doctor Cullen has observed “ that thus at length the
“ disease ceases entirely leaving only some inde-
“ lible eschars, pale and smooth, but in some
“ parts shrivelled, or where it had occupied the
“ joints leaving the motions of these impaired or
“ entirely destroyed.”

Such is the history and progress of this disease, which adds more to the bills of mortality than

than almost any other, and disfigures the most beautiful of our species.

Having before shewn how ineffectual those remedies are, which are usually prescribed for Scrophula, I shall suggest some others, resulting from our more extensive knowledge of the principles of philosophical Chemistry. Indeed it is to the labours of those, who have so extensively applied those means which result from the cultivation of this branch of natural philosophy, that medicine owes its rapid advance, and when we reflect upon the important discoveries, which have resulted to mankind from the happy industry of the present age, we are to look forward with the pleasing hopes, that the time is not far distant when instruction concerning the causes of the health and disease will be acknowledged to form a necessary part of all rational education; and the nearer we approach to this period, with

less hazard may the analysis proposed by Johnson, with the plan so enlarged, and the purpose so ennobled, be executed*.

If we take a survey of the progress of human knowledge from the earliest times to the revival of learning in Europe, we shall discover in the mind of man, a spirit of inquiry and a zeal for emulation which nothing can restrain. In the hurry of his pursuits, we shall see him too commonly decide from the most imperfect observation of nature, and this leads him to form wrong notions and conceptions of things—It requires no pains to discover, for daily intercourse with the world will substantiate the charge, that men believe without evidence, trust without discernment, and maintain without moderation. The clearest and most

* BEDDOES's Edition of Brown's *Elementinæ Medicinæ*, Vol. I. page 115.

most doubtful, the most reasonable and the most absurd propositions meet equally with their assent, provided they have been handed down from remote ages of antiquity or have obtained a currency in the world*.——With them an opinion once adopted must never be changed, and every opinion must be adopted, which has been established by prescription, and is hung round with awful and sacred trappings—with a view to avoid this unmanly and pernicious excess, others run directly into the opposite: They object to the plainest and simplest truths, doubt where there is not the least shadow of ambiguity, and suspect and even condemn as guilty where there is no fraud; they refuse to assent but upon the strictest demonstration, overturn every principle upon which justice or demonstration can be built,
 reason

Vide BROWN'S Essays on Dogmatism and Scepticism.

reason themselves out of common sense, if ever they possessed it, and under pretext at arriving at knowledge and liberty, involve themselves more and more in ignorance and slavery, and that those who boast most of the greatest freedom, are most loaded with taxes, occasioned by the wars of ambitious ministers and their legions, supported by a venal representation of venal electors*. Thus while many are straining every nerve to sanction error and superstition, under the deceptive appearance of truth and piety, others are equally active and sedulous in undermining those truths which Philosophy† suggested and experience has ratified,

* Vide Abbé Raynal's History of the East and West Indies, Vol. VI.

† I do not mean that Philosophy which has reared its head in France, which teaches that there is no God, no Providence, which countenances rapine and murder; but

fied, under the (*prima facies*) of error and incredulity. Both are equally extravagant and absurd, and between them the cause of *virtue*, of *liberty*, and of *truth*, and together with it the happiness of mankind, are continually receiving fresh wounds, which require more than human prudence to heal them of.

Let us hope that the time is not far distant, when the eyes of men will be opened, and they will be able to judge for themselves and exercise their own reason, without putting an implicit confidence in others, who will rejoice to see error usurp the throne of truth—when those narrow prejudices which now obscure their understanding will be done away, and they will be ready to confess, that upon the only

but that rational Philosophy with which the writings of Mr. Godwin, Mr. Burke, and other such great characters, abound with—that which teaches us, “to do unto all men we would they should do unto us.”

only principle on which we can be of essential service to our profession is, by accumulating useful facts, which are indisputably much wanted, and in forming just and natural deductions from them. In compliance with this precept we shall unite the observing and rational faculties, and accommodate our conduct to that of the bee; for as Lord Bacon observes in his Nov. Organ. " It appears " that those who have treated the sciences " were either empirics or rationalists. The " empirics, like ants, only lay up stores and " use them; the rationalists, like spiders, spin " webs out of themselves; but the bee takes " a middle course, gathering her matter from " the flowers of the field and garden, and " digesting and preparing it by her native " powers." That in like manner is the true office and work of Philosophy, which not trusting too much to the faculties of the mind, does not lay up the matter afforded by rational history

history and mechanical experience, entire or unfashioned in the memory ; but treasures it, after being first elaborated and digested in the understanding ; and therefore we have a good reason to hope, from the strict union of the experimental and rational faculty, which have not hitherto been united.

To return to the subject of Scrophula, we find that an acrimony and acidity were long ago suspected to be the proximate cause of this disease—indeed late writers trace the whole train of symptoms to a prevailing acid with which children in particular are more affected than adults. Doctor Ruffel in his *Œconomia Naturæ* has undertaken a very useful work, viz. to give a history of the changes that happen to the different parts of the system through the different ages of life ; but unluckily, when considering the alterations of the

R glands,

glands, from the effects of the acid with which as I before said children were particularly subject to, he has neglected the conglobate or lymphatic—What he has said respecting any of the different stages of life, has been the invention of a fanciful imagination.

In infancy, the lymphatic system bears a large proportion to the other parts of the body. This proportion gradually diminishes, as we advance in years. Hence we must naturally conclude that it has a peculiar use in children.

Galen's theory of Scrophula was, that it arose from a cold pituitous humour: others attributed it to a redundancy of fluids; and as soon as chemistry was cultivated, it was traced to a prevailing acidity; and this has, with some little difference in expression, been embraced
by

by almost all writers on the subject down to the 18th century.

The theory of Boerhaave was, that it depended upon a spissitude and lentor of the fluids. Then came to be adopted the doctrine of peculiar acrimony*. Doctor Cullen was

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of

* "The solidists," says Doctor Valli, "have declaimed much against this doctrine and practice, but even amongst those who have most exerted themselves in attempting to reform the science of medicine, we find several who have retained some of their ancient prejudices, and talked of acrimony in the blood, in the same way as it was spoken of in the old school. I cannot avoid comparing these Physicians to Apostates in Religion, who always retain some maxim of that in which they were educated. I do not mean to deny the existence of acrimony altogether. Acrimonies exist, but they are always in their origin the result of a vitiated secretion.—Analogy, and a great number of facts and observations serve as a basis for this opinion. My Essay on Chronic diseases (*Saggio sopra diverse malattie croniche—edizione di pavia, anno 1792*) has this principle for its foundation. Thus I am of opinion, that in Phthisis Pulmonalis, the lungs themselves form

of opinion that it depended upon a peculiar constitution of the lymphatic-system.

Doctor Smith attributed it to a cold matter obstructing the glands, and rendering them almost of a scirrous hardness.

Scrophula

form an acrimony of a particular kind : that in the rickets, the blood vessels, which are intended to nourish the bones, secrete a menstruum or solvent for that portion which constitutes their basis : that the scrophulous acrimony is likewise prepared by the lymphatic glands. Doctor Cullen is of this opinion, although he at first suspected a peculiar acrimony in the blood ; that all the scrophulous affections, such as the *Tinæa capitis*, eruptions in the skin, indolent swellings, &c. are the effects of a morbidic humour originally elaborated in the lymphatic system, provided these affections are not hereditary or acquir'd by way of contagion ; that other acrimonies which affect the skin, have likewise their origin in the lymphatic-system ; that the spleen, under certain circumstances, secretes a fluid which attacks the gums, or produces ulcers on the skin."

VALLI on Animal Electricity, page 303.

Scrophula, according to Sir Clifton Winttingham, consists not only in a diseased state of the vessels in the part affected, but also in a lentor and acrimony of the fluids which pass through them. For the cure he advises calomel pp^t. taken in small quantities and at proper intervals with diluent and sedative decoctions of china-root, sarsaparilla, saffra^s, or guaiacum,

He directs that mild cathartics should be given at times, and on those days which are free from purging, that the patient should use the warm bath or emollient fomentations with friction of the part affected, in order to drive the mercury to the obstructed vessels. When these remedies have been used for some time, we are to have recourse to mineral waters, and in order to prevent a relapse the Peruvian Bark and steel should be taken after the cure is completed.

Doctor

Doctor Fordyce (the learned reader on the practice of physic in this city) considers Scrophula as an affection of the *mucus membrane*, which in consequence of matter forming from inflammation, often indeed so slight, as to be little noticed, part is absorbed by the next lymphatic-glands, and the disease then assumes its real glandular form.

Mr. White considers a peculiar tenuity of surface, or firmness of skin as the cause of susceptibility to the disease, which is confirmed by the effect that changes of weather have on it. He observes that two kinds of constitution are distinguished by this sort of surface; the first is marked by large superficial veins, a paleness of countenance, a languor in the eye and what is in general termed a want of vivacity, or constitutional torpor. The other is distinguished by a florid complexion, skin

skin easily varying its appearance on the slightest changes, vivacity of eye, sprightliness of manner, and great irritability and acuteness.

Doctor Nesbit, the next writer after Mr. White *, offers it as his opinion that Scrophula is a disease, arising from a peculiar morbid state of surface, most prevalent in the early period of life. That this state of surface is at the same time connected with general laxity, flaccidity, and often irritability of the system; and that these circumstances exist in a high degree. That in this state of surface, inflammation attacking any part of the mucus membrane, it passes into ulceration, and the matter of this ulcer

* It was not till after these pages went to the press, I had an opportunity of seeing *Hamilton on Scrophula*, and I was then obliged to Doctor Hooper, the learned author of the *OECONOMY OF PLANTS*, for the loan of that very ingenious work. He coincides with the writers of his day, that Scrophula is an affection of the lymphatic system, and is to be cured by tonics and sea-bathing.

ulcer being absorbed by the next lymphatic glands, the peculiar form of the disease or the lymphatic swelling next takes place; and this matter then elaborated in the lymphatic gland, acquires the peculiarity which renders the discharge scrophulous, or constitutes the peculiar acrimony of the disease. This inflammation of the mucus membrane is often so slight, as hardly to be noticed, and the succeeding swelling of the lymphatic gland is considered as the first symptom of the disease, and never thought to arise from the former cause. The affection of the lymphatic gland then, is properly the second stage of the malady; and as this matter originally absorbed is not so acrid as the venereal and others, nor the gland itself endued with much sensation, the progress of the disease, in it, is for a long time tardy, till it acquires a certain size, and affects the external teguments. When the disease arrives at its height, and a rupture of the teguments
takes

takes place, a peculiar matter seems to be then formed, possessed of various degrees of acrimony, from simple ferocity, to that of acting a real solvent of the animal fibre.

All writers agree that it is an affection of the lymphatic system, producing laxity of fibre, and universal debility : and it is of very little consequence what the cause is capable of effecting this, since necessity points out the plan of treatment, that of giving tone to the fibre and restoring the general health of the patient*.

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* The Rev. Mr. Townsend has informed me* that he has remarked that during a period of thirty-five years in his parish (Pewsey in Wiltshire,) that females are more subject to Scrophula than males, those engaged in sedentary employments, than such as work in husbandry, and they who reside in damp houses or low situations than the residents in more elevated and sandy or gravelly spots. He adds that whatever gives tone to the animated fibre, must be of essential service in this disease.

* In a letter to the Author.

It has already been satisfactorily shewn how oxygenated air quickens the action of the absorbents, from whence it follows, that its use must be highly beneficial in Scrophula, and experience has proved it so; the constitution must be prepared by proper evacuations to receive an additional supply of this pabulum vitæ. We might at least urge the utility of this new mode of cure till a new theory is established and other remedies offered.

The remedies which from time to time have been used for the cure of Scrophula, are no less multifarious than virtueless.

Among the earliest, and for near a century back the Fol. Digit. Pur. * was principally recommended both internally and externally. This by degrees, like most ephemeral medicines,

* Raii. Hist. Plant. Vol. I.

cines, fell into disrepute, and then the expressed juice of the water-parsnep (*Sium Nodiflorum* L. S. P.) in doses of two to four ounces in milk was given*. With these, absorbents were given to correct the acid in the stomach, to which were also joined the different woods as guaiacum, sarsaparil, sassafras, serpentaria, mezereon, &c. The neutral salts were extolled as specific, like most medicines to which that name is given, failed in almost every instance.

In the time of Boerhaave and Heister, preparations of mercury and antimony were held in high esteem, and if the chimerical and extravagant accounts of the numerous cures which these medicines either separately or conjunctively performed are to be credited, we need search no farther for specifics. Mercury is a

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very

* Vide Doody apud Ray Synops. Ed. 2. appendix.

very good medicine in Scrophula, and as it comes so strongly recommended to our notice by Mr. White, who has cured several hundreds with it, it deserves attention ; but I am inclined to think, that it is the oxygene* which
by

* The ingenious author of *Enchiridion Syphiliticum* speaking of the action of mercury in curing Syphilis says, page 31, " That mercury taken into the body, in its metallic or crude state, produces no other effects, except in so far as it is a ponderous fluid. When used as a remedy for disease, it is always exhibited in form of a calx. Chemistry teaches us that metals are formed into calces by combination with oxygene, or the principle of acidity, termed also pure or vital-air, which enters in the proportion of about a fourth part into the composition of our atmosphere. This species of gas is known to be a very active agent in many processes in the animal œconomy ; it is that part of the air, which essentially maintains combustion, and which, taken into the lungs, supports life ; it imparts the florid colour to arterial blood, and is by some supposed to be the principle of irritability itself. With oxygene mercury easily combines, and readily separates from it : or in other words is easily calcined : but not retaining the oxygene very firmly, is readily restored to its metallic form.

by some process, is separated from it in the constitution which performs the cure by its stimulating the lymphatics, and not the mercury; for it is proved by all Physicians, at least by all who have appealed candidly to its effects, that mercury operates as a stimulus; that it promotes if aided by other similar powers (particularly oxygene-gas) a vigorous perspiration, and is inductive of other phænomena characteristic of the operation of a stimulus. It legitimately follows therefore, that the good consequences arising from its use result from this source*. Besides as an additional argument in favour of this theory, it might be urged that as OXYGENE IS THE PRINCIPLE
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* Spilsbury's antiscorbutic drops—Leak's pilula salutaria, and all other quack medicines so celebrated and imposed upon the credulous public for curing Scrophula and scorbutic complaints, have mercury for their basis—and if they ever do any good, it must be from the disengagement of their oxygene in the system.

OF IRRITABILITY*, a fact of which there does not remain a doubt in my mind ; and as it has been before shewn that in scrophula under all its shapes and modifications, there is

* Two late physiological writers have endeavoured to ridicule this truth. The one with a supercilious contempt of all opinions that do not coincide with his own fantastical, and absolutely and personally singular system says, " this particular air, this oxygenous matter, which vegetables in the day are constantly discharging from the whole external surface of their foliage as urinous and dead, and which these pure defecated philosophers dream, constitutes the principle of life in which all power essentially resides, the immediate and proximate cause of irritability in man !!! " (Saumarez's New System of Physiology, chap. 5, Vol. I.)—The other with a similar share of self-conceit tells us that " the chemical doctrines of Monsieur Lavoisier and the electrical Theory of Doctor Franklin are founded on absurd principles, and are therefore erroneous. I have proved," adds he, " by such arguments as I do not for a moment hesitate to assert are absolutely conclusive, whatever therefore may be the fate of my own Theory, theirs to a certainty are false." (Peart's Physiology).—To avoid the inconsistencies of their Predecessors, they have run themselves into greater and have been obliged to attribute new and unknown properties

is a deficiency of this principle, the principle of life; is it therefore not wonderful, from this inference respecting its qualities (mercury) that means of a similar nature, such as the inhalation

properties to matter. Thus instead of solving the Gordian knot, they have rashly cut it asunder, and have involved the subject in greater obscurity than ever—such men may have sacrificed more than hecatombs, and may have laboured for many years in the investigation of Physiological enquiries, and all the time have been arguing and writing on principles specifically erroneous, a perturbed imagination, and with strong prejudices—their opinions then are very far from being entitled to respect or attention.—I will not say that these are the men; but the peremptoriness of their language, their dogmatical mode of argument, the haughty complacency with which they speak of themselves, and the uncharitable and unmanly censures which they pass upon others, whether *dead* or *living*, render their opinions to me of little value, and their assertions of no authority. It might not in this place be amiss, to inform these philosophers of a truth they do not either comprehend or disbelieve, that where the quantity of oxygene in organized bodies is diminished, there is also a diminution of irritability, excitability, or sensorial power, and that this irritability is again restored by the restoration of the oxygenous principle.

halation of oxygene-gas, exercise, &c. are not had recourse to during its use, to co-operate with it, to enlarge the basis of our truly limited practice, and more completely and triumphantly obtain the advantages which these qualities intimate to us ?

Cicuta has been a very fashionable medicine with physicians in this complaint. Like new cloaths it has its admirers for a time. I have given it to several patients and never found it do any good. I believe myself that it never did any good in any one complaint. The history of this article exhibits to us a curious instance of neglect and inattention to the circumstances accompanying its exhibition ; as we have demonstrable proofs of its being solely
and

ciple. The irritability thus supplied to the body through the medium of the lungs, is continually wasted by muscular exertion, and the action of different stimuli—
Magna veritas est, et prevalabit !

and abstractedly attended to till experience clearly evinces its efficacy and completely shews the want of an analysis of its being solely and abstractedly attended to till experience clearly evinces its efficacy and completely shews the want of an analysis of its qualities and the nature of this disease ; for no inference respecting its qualities and mode of operation is discernible ; all that is supposed, is only that it is possessed of a specific virtue.

The muriated barytes, according to the reports of Doctor Crawford, promised to do a good deal in arresting the progress of the disease. In other hands it has failed of its boasted virtue, nor have I in five cases in which I have given it, seen any good derived from it.

Doctor Ruffel sent his patients to the seaside, and ordered them to rub their glandular swellings with the *alga marina* ; a cabbage

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stump

Stump would have answered as well. With it he gave small doses of calomel ppt. and salt water, and never omitted sea-bathing.

Doctor Cullen and the late Doctor Fothergill both gave Cicuta, but never without joining mercury with it, upon which its success principally depended. Doctor Cullen chiefly recommends the chalybeate waters, cold-bathings, cicuta, and common water in preference to sea salt-water. He condemns the cinchona, and speaks in strong terms of exercise, friction, &c. &c.

In respect to salt-water, I never saw it do any good in this complaint; on the contrary I think with Doctor Nesbit, that by carrying it too far, the system has been weakened by the discharge it has produced, and the disease rather aggravated than relieved. Doctor Buchan says " that sea-water should be only given in
" gross

“ gross habits, and then only with a view of
 “ its acting as a purgative.” Like many re-
 medies it possesses for some time an undeserv-
 ed reputation ; and if it ever does service it
 must rather be as a preventive, than when
 the disease is formed.

Steel medicines have been universally given
 and with success ; this must be attributed to
 something more besides their tonic powers.
 “ Chalybeates,” says the ingenious author of the
 Guide to Health, Vol. II. “ have certainly a
 “ two-fold effect, for as the natural vehicle
 “ of oxygene, and the constituent principle
 “ of red blood, they strengthen the digestive
 “ organs, and excite the absorbents. Indeed
 “ all the metallic oxyds, excepting the mercu-
 “ rial, act in the same manner, only in a su-
 “ perlative degree. For this reason iron has
 “ maintained its empire, and whilst we have
 “ one oxyd, which when conjoined with th

“ vital-air, in these cases may be regarded as
 “ nearly infallible, we need be less solici-
 “ tous about the rest.”

The mineral waters on the same principle as I have accounted for the good effects of chalybeates, should be early had recourse to, by which many of these subsequent stages of the disease will be obviated. The waters of Bristol Hot-well *, Harrowgate, Scarborough, Moffatt,

* The experiments of Doctor Carrick shew that a wine gallon of 231 cubic inches of Bristol Hot-well water is unpregnated with *Seq.*

	Grains
Muriated Magnesia.....	7 $\frac{1}{2}$
———— Soda.....	4
Vitriolated Soda.....	11 $\frac{1}{2}$
———— Lime.....	11 $\frac{1}{2}$
Carbonated Lime.....	13 $\frac{1}{2}$
Making together of solid matter.....	47 $\frac{1}{2}$
	————
	Carbonic

Moffatt, the Island of St. Michael, and most other spas in Britain, may be used with advantage, but at the same time with precaution ! I have seen them produce bad effects, by an indiscriminate use as to quantity, and the regimen pursued at the same time of drinking them, by which affections of the bowels have

Carbonic-acid-gas.....	30	Cubic Inches
Respirable air.....	3	Ditto
		<hr/>
Making together of gaseous fluids.....	33	Cubic Inches
		<hr/>

Vide CARRICK's Dissertation on the Hot-well water.

The greatest class of mineral waters in this country is the chalybeate. In many parts of Britain these are to be found in almost every field ; but those chiefly in use, for medical purposes, are the purging chalybeates, as the waters of Scarborough, Cheltenham, Thorp Arch, Nevil Holt, &c. Of those which do not purge, the waters of Tunbridge stand in the highest repute. The saline purging waters, as those of Acton, Epsom, Kilburn, &c. are also in very general esteem ; but the fountains most frequented by the sick in this country are those to which the minerals impart a certain degree of heat, as Bath, Buxton, Bristol, &c.

have come on, followed by indigestion. This again leads me to speak of exercise, which promotes the operation of mineral waters, and is necessary to carry them through the system. Besides which, it increases the respiration and promotes the oxygenation of the blood; and by this it gives vigour to the system, and excites the action of the absorbents.

* Exercise, says a learned physician, is almost the only cure we know for glandular obstructions; indeed it does not always succeed as a remedy; but there is reason to believe that it would seldom fail to prevent these complaints, were it used in due time.

Van

* Horse exercise is particularly serviceable in Scrophula. Morton strongly recommends it for to excite moderate perspiration, to strengthen the digestive organs and to shake off the tough and viscid mucus obstructing the absorbents of the stomach and small intestines. Page 229.

Van Swieten in his Commentaries on the Works of Boerhaave observes, that for want of exercise the stomach and bowels become internally coated with rough phlegm, but that by increased respiration and alternate action of the abdominal muscles, these viscera are shaken, pressed, and scrubbed, as it were, by attrition, so as to be effectually cleansed, and adds, “ *Ventriculus et intestina, lento glutine*
“ in interna sua superficie obducuntur: valido
“ motu dum corpus exercetur, respiratio aucta
“ diaphragmatis, et musculorum abdominali-
“ um actione reciproca omnia hæc viscera mo-
“ vet, premit, ad se mutuo quasi affricat: et
“ sic detergantur omnia § 69.”

And Boerhaave himself says that to assist the digestive powers of the stomach and bowels, and the general action of the absorbent system, recourse must be had to air and exercise—“ *Tum ut optime digeri queant, condi-*
“ mentis,

“ mentis, potu vinoso, exercitio, aere, pro
 “ curandum § 69.”

Where the lungs are diseased a sea-voyage and exercise on board ship, have contributed to restore the health of scrophulous patients; which as Pliny observes depend more on the length of the voyage, than on the climate, “ neque enim Egyptus propter longinquitatem navigandi.” Next to exercise in this complaint ranks cleanliness. We know, says Avicenna, of many diseases which are to be cured by it alone—In all it ought to be strictly observed.

The levitical law of the Jews is well calculated for the prevention of those diseases which arise from uncleanness, which enforces ablutions and bathings, and makes cleanliness a part of the Jewish religion.

The

The children of the lower class of people suffer severely from an inattention to this particular ; and SAUVAGES enumerates a species of Scrophula arising from lice.

The bodies of scrophulous patients should be washed every morning with cold water impregnated with vinegar, and immediately afterwards rubbed dry with flannel.

Cold bathing, if there should be no disposition to tuberculous consumption, is attended with many advantages, but I fear much mischief has arisen from an indiscriminate use of it, and particularly to infants and children that are weakly. In the Orkney Islands it is a custom to plunge children soon after they are born into the river.

Left they should from their father's strength decline,
They plunge them shivering in the freezing Rhine.

By strengthening the solids, and promoting a free perspiration, it gives liveliness, warmth, and vigour to the constitution, and nature seems to have pointed out this remedy, both to the ancient, and new world. Virgil informs us, that it was a custom in Italy, long before the Roman times, to dip persons afflicted with Scrophula in the cold streams :

“ Durum astirpe genus, Natos ad flumina primum,

“ Deferimus, sævoque gelu duramus et undis.”

ÆN. Lib. 9. lin. 63.

On the subject of diet I have before spoken, but here I must again observe that the most nutritious food should be allowed children who shew a tendency to Scrophula ; but at the same time, they should not be allowed to gormandize. Repletion carried too far in any disease, is as bad as inanition. When their appetites have been imprudently indulged, an emetic should be given ; for independent
of

of its clearing the stomach, it will have a good effect on the constitution. The wise son of Sirach confirms this precept and says, " If thou hast been forced to eat, go forth and vomit, and thou shalt have rest." Ecclus. chap. xxxi. ver. 21; and most certain it is, that hundreds have lost their lives, and thousands have suffered sickness and pain, from their ignorance or neglect of this rule.

Both Hippocrates and Celsus give it as their opinion, that men should sometimes indulge themselves at feasts*, and sometimes

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eat

* Great disputes have arisen, says the learned Doctor Mackenzie concerning this rule of Celsus: his words are, "*modo plus justo, modo non amplius assumere.*" Some approve of the full latitude he gives, others highly blame it. Lord Verulam thinks, that excess in eating and drinking should now and then be indulged. "*Epulæ profusæ porpotationes non omnio inhibendæ sunt.*" Hist. Vitæ et Mort. page 341. Melchior Sebizius, on the other hand affirms, that by this advice Celsus gives full scope

eat and drink more than is proper, but why they do not tell us. Vide Hippoc. aphoris. Lib. 2. Cels. opera, omn. Lib. 4.

Salt meats should be forbidden where there is the least disposition to enlarged glands ; and persons in years who lead lives of drunkenness *, sometimes become scrophulous from the

scope to intemperance, and sets himself up for a patron of gluttons and drunkards.—“ Quibus verbis comedonum, bibonum, helluonum, patronum agere videtur : et latam quoad aiunt, fenestram, asotiae et confusioni aperire : nam si quod dicit verum est, videntur sane regulæ Hygieines inverti, quæ opportunum tempus, decentem quantitatem, et debitam qualitatem requirunt. Natura enim ordinem requirit, sunt que motus illius definiti et ordinati.”

De, Aliment. Facul. Lib. 5. prob. 72.

And Sanctorius says, that it is not safe for all healthy persons to observe this rule “ Celsi sententia non est omnibus tuta.” Sec. 3. Aph. 42.

* Hard drinking, exclusive of war, pestilence, and famine, those dreadful scourges of nations, is perhaps the most

the lymphatics becoming diseased from exhausted irritability.

It is conjectured by some writers, that large draughts of cold water bring on a torpid state of the lymphatics ; and hence it has been deemed

most deadly and insidious foe that ever infested this country. For this evil spirit, like a destroying angel, stalks through the land with a steady though silent step, every where spreading its baneful influence over our cities and villages, particularly among our poor infatuated soldiers, sailors, manufacturers and day-labourers. Spirits, says the justly celebrated L'Abbé Raynal (*Hist. of the East and West Indies*) one of the most conspicuous characters in the commencement of the French revolution, were the gift the most fatal the old world ever made to the new.—It was soon observed, that it disturbed their domestic peace, deprived them of their judgment, and made them furious.—In vain did some worthy Frenchmen expostulate with them, and endeavoured to make them ashamed of those excesses. “ It is you,” answered they, “ who have taught us to drink this liquor, and we cannot do without it ; you have done the mischief, “ and it admits of no remedy.”

ed prejudicial as common drink for children.
Hudibras, who was no bad Physician says,

- “ Of all the liquors that men do drink,
“ Water’s by far the best I think.
“ But then its qualities should be,
“ Sic aqua clara, qualis nitidissimus aer,
“ Dulcis et exigui pondus et gelida :
“ Et tenuis currat, nullo purissima limo
“ Sitque sapor nullus, sit procul omnis odor.
“ Frigescat breviter, modico simul igne caleseat
“ Utilis, et duras apta leguminibus
“ Hanc mihi si quis aquam dederit, vinosa valet
“ Pocula nam vincit optima lympha merum.”

Thus the Physician : but the Poet recollect-
ing, perhaps, that——“ nec vivere carmina
“ possunt scribuntur aquæ potoribus,” pre-
sently subjoins,

- “ Vina bibant homines, animalia cætera fontes,
“ Absit ab humano pectore potûs aquæ.”

Next

Next to water as common drink I shall speak of wine * as a medicine, which by the learned Doctor John Brown ranks amongst the first in the scale of stimuli. Scrophulous children should be allowed at least three glasses every day. It is much to be regretted that a medicine †, which takes precedence of almost all

* Wine contains both hydrogen and carbon in different proportions according to its strength, or weakness. In fermentation it takes oxygene from the atmospheric air, and becomes vinegar; but by distillation it yields alcohol or pure spirit, which contains about one fifth of hydrogen for 16 ounces of alcohol by combination, uniting with oxygene from the atmospheric air, produces 18 ounces of water.

† The human species would do well, and certainly enjoy a greater share of health, if there were fewer *physicians* and less *physic*.—And I cannot but admire the prudence of the Roman emperor who excused the physicians from the banishment which he intended to the rest of the people. When he was asked why those gentlemen should be better used than the rest, he answered, *If I banish the physicians, Rome will soon grow too populous.* One of the Scotch proverbs says,

“ The best physicians are Doctor Diet,

“ Doctor Merriman, and Doctor Quiet.”

all others in point of virtue, should be so dear as to be only attainable by the rich.

“ The weary,” says Homer, “ who knew
 “ the taste of it well, find new strength in
 “ generous wine.” *Αγῶρι δεκμηνηῶτι μένος μελαιόλαιον
 ἐξεί.* The invention of this wholesome beverage might be justly ranked amongst the greatest improvements of man’s aliment, and which well deserves the encomium bestowed upon it by Plutarch of being “ THE MOST NOBLE OF ALL LIQUORS, THE MOST PALATABLE MEDICINE, *and of all delicacies the most grateful to the STOMACH.*

Aretæus, also a Physician of the first rank among the ancients, commends wine no less than for the cures which it performs. I shall cite his own words from the elegant latin version of the learned Doctor Wiggan. *De morb. acut. curat. Lib. i. Cap. 1.* “ Sed quum metus
 “ fit,

“ sit, ne in vaporem humiditatemque homo
 “ dissolvatur, unicum subsiduum vinum est:
 “ celeriter enim substantiam alendo instaaret:
 “ et quoque versus ad extremitates usque per-
 “ meat, robori apponit robur, et spiritum
 “ torpentem expergescit, frigiditatem calore
 “ temperet, laxantem madorem astringit ex-
 “ trorsum erumpentia atque diffluentia coercescit,
 “ olfactu suavi delectat: vires demum fulcire
 “ ad vitam prorogandam potest.”

Thus I have endeavoured to give as brief and concise a description as possible of those diseases which are deemed serophulous*: it

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would

* The reader is referred to the following writers for further information on the subject.

Hoffman opera omni. Barbette de serophulis: Cap. ii: paragr. Editio Mangetii Geneva anno 1688.

Bonet: sepulchretum Anatom: Tom. 3. Lib. iv:

Hildani opera omnia.

Ambrose Parrey's Works.

D.

would have been in vain to attempt compressing every thing that is known or has been written on the subject, within the narrow limits of a publication of this kind,* which is intended merely to give the outlines of a work I shall soon publish on a much larger scale.

De Haen. Ratio medendi, cap. xx. page 127.

Edinburgh Medical Essays.

Glisson de Rachitide.

White on Scrophula.

Nesbit Ditto.

Hamilton on Scrophulous Affections. (*cum multis aliis*)

* The *Lumbar-abscess*, which is a true Scrophulous affection, was unavoidably mislaid, till those sheets were printed off; I was therefore under the necessity of placing it after the general history of the disease.

SECTION

SECTION IX.

LUMBAR-ABSCESS.

THE lumbar-abscess, most commonly is seated in the lumbar or the sacral lymphatic glands, and always in a scrophulous constitution. Eight cases have fallen under my observation, all of which were in scrophulous subjects. After the matter is formed, it descends, and presents itself, below Poupart's ligament, in the form of a tumour, along the course of the crural vessels. It not unfrequently happens, that it makes its appearance in the form of a tense tumour under the glutæi muscles, and from this situation of the disease we are to apprehend a fatal termination. Every opportunity I have had of inspecting the bodies of

who have died of lumbar-abscess, confirms me in an opinion I have long held, that the whole thoracic viscera are diseased in common with the sacro-lymphatic-glands.

I opened the body of a man last winter, who had lingered out nearly two years with this melancholy disease. The lungs were full of tubercles, the liver was schirrus; the air-vesicles were attached to the edge of the lungs.

Mr. Abernethy, the ingenious lecturer on anatomy and surgery at St. Bartholemew's Hospital, has recommended a new mode of treatment, by gradually evacuating the matter. This practice has been adopted all over Europe, with various success. Scrophulous abscesses should be treated just in the same way*.

When

* The opening of scrophulous abscesses in general when attended with circumscribed hardness has been found

When hectic fever has much harassed the patient, I have found a decoction of the Lichen Islandicus of service. For a more particular account of this disease I must refer my readers to Hamilton on Scrophulous affections, and Abernethy's Surgical and Physiological Essays, Vol. I.

Indulging the persuasion, that I have traced an outline of a new branch of the Materia Medica, I submit these observations to the public eye; and in the words of Seneca shall for the present take leave of the subject, claiming it as a piece of justice at the hands of mankind, if

found to be productive of harm: for these require, after artificial opening, a longer time to recover than when they are permitted to burst of themselves: but an aperture is indispensibly necessary in those collections of matter which cannot be discussed and are attended with no surrounding hardness—for here if the matter be not let out, it will often diffuse itself into the cellular membrane, and cause a number of extensive sinuses.

if they would judge of any thing I have delivered, either from their own sense, the cloud of authorities, or the forms of demonstration, which now prevail as so many *judicial laws*; that they do it not on a sudden and without attention, but first master the subject, by degrees make trial of the *remedies* I have recommended, and accustom themselves to that subtlety of things implanted in experience; and lastly, that by due and seasonable perseverance, they correct the ill habits that closely adhere to the mind;—and when thus they begin to be themselves, let them use their judgment and welcome.

“ Multum adhuc restat
 “ operis, multumque restabit; nec ulli nato
 “ post mille secula præcudetur occasio aliquid
 “ adhuc adjicienda.”

SENECA.

FINIS.